



# *National Water Supply & Drainage Board*



*Annual Report 2013*

## Mission

Serve the nation by providing sustainable water & sanitation solutions ensuring total user satisfaction

## Vision

To be the most prestigious utility organization in Sri Lanka through technological and service excellence

## Goals

- Increase the water supply and sanitation coverage
- Improve business efficiency
- Improve services to customers and promptly attend to public complaints
- Promote Information and communication technology solutions as a catalyst for business growth
- Ensure greater accountability and transparency
- Promote Human Resource Development
- Facilitate safe drinking water supply and sanitation to rural and underserved communities

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**His Excellency Mahinda Rajapaksa**  
**The President of Democratic Socialist Republic of Sri Lanka**



**Dinesh Gunawardana, M. P.**  
**Hon. Minister of Water Supply and Drainage**



**Nirupama Rajapaksa, M.P.**  
**Hon. Deputy Minister of Water Supply & Drainage**



## ▶ Message from the Secretary, MWSD



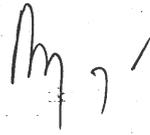
Throughout the year 2013, the Ministry of Water Supply and Drainage (MWSD) continued to work together with the National Water Supply and Drainage Board as in the previous years in order to provide safe drinking water and wastewater disposal facilities to the public.

The total number of piped water supply connections was increased up to 1,707,747 by providing 120,084 new service connections during the year contributing to an overall piped water coverage of 43.7% while service level to existing consumers was improved by commissioning several major and minor water supply projects in different parts of the country.

The piped sewerage coverage by end of the year was 1.92% and the special project under the World Bank assistance launched in the previous year to provide new sewerage connections on concessionary terms in order to increase the number of sewer connections, was continued through the year.

A special attention was given by NWSDB to provide safe drinking water to Chronic Kidney Disease of unknown etiology (CKDu) affected areas by introducing and establishing small Reverse Osmosis (RO) plants to purify ground water from wells and boreholes and operating bowser supplies from existing water supply schemes to such areas in close proximity.

I wish the success to the endeavors of NWSDB to provide the public with high quality service.



**A. Abeygunasekera**  
Secretary  
Ministry of Water Supply & Drainage

30<sup>th</sup> March 2014





## **National Water Supply & Drainage Board**

The supply of potable water was originally the responsibility of the Public Works Department (PWD) which was subsequently transformed to the Department of Water Supply in 1965. Thereafter, the National Water Supply & Drainage Board was formed by Act of Parliament in 1975.

The National Water Supply & Drainage Board functions under the Ministry of Water Supply & Drainage which was established in 2007 to cover the subject area of water supply and sewerage separately. The National Water Supply & Drainage Board is the only organization coming under the purview of this Ministry.

Around 84 % of the population have access to the safe drinking water of which 43.7 % is through piped water supply systems including the 34.0% of the population which is covered by piped water supply systems of the NWSDB.

## **Notice of the Report**

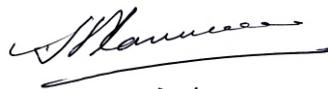
Hon. Minister of Water Supply & Drainage,  
Ministry of Water Supply & Drainage,  
Lakdiya Medura,  
No. 35, Sunil Mawatha,  
Pelawatta,  
Battaramulla.

Dear Sir,

Annual Report and Financial Statements - 2013  
National Water Supply & Drainage Board

In terms of Section 14 (2) of the Finance Act No. 38 of 1971, the members of the Board have the honour to forward herewith the Annual Report and the Financial Statements of the National Water Supply & Drainage Board for the year ending 31<sup>st</sup> December 2013.

Yours faithfully,



**Karunasena Hettiarachchi**  
Chairman  
National Water Supply & Drainage Board

25<sup>th</sup> February 2014

## Chairman's Statement



“Through 547 million cu.m. of drinking water produced in the year 2013 under 325 water supply schemes in operation throughout the country, safe drinking water was supplied through 1,707,747 service connections including 120,084 new connections provided in year 2013.”



The National Water Supply and Drainage Board completed another successful year in its history of invaluable service to the nation by continuing to provide safe drinking water facilities and sewerage facilities to the public during the year 2013. Providing new connections and improving the Service levels of existing consumers were achieved by commissioning major and minor water supply projects in different parts of the country. Projects being implemented in war affected Northern and Eastern areas include rehabilitation and reconstruction of water supply and sewerage facilities, thereby improving the livelihood of those affected.

Through 547 million cu.m. of drinking water produced in the year 2013 under 325 water supply schemes in operation throughout the country, safe drinking water has been supplied through 1,707,747 service connections including 120,084 new connections provided in year 2013. This was contributing to bring the total pipe borne water supply coverage of the country to 43.7% as at end of the year 2013. This was achieved while in the process of reaching the goal, 60% pipe borne water coverage by year 2020 as in the Medium Term Investment Program of Mahinda Chinthana, the foresight of His Excellency the President of Sri Lanka.

Activities during the year towards the goal on water supply and sanitation coverage were carried out throughout the country utilizing the allocation of Rs. 34.76 billion for 2013 as capital budget on water supply and sanitation. In addition to that, the NWSDB continued to rehabilitate and improve existing water supply schemes using Rs. 958.22 million of its own finances in 2013.

Special efforts taken to reduce NRW and energy cost during 2013 are noteworthy. The M&E Services Division of NWSDB is fully equipped with energy measuring equipments to carry out all types of energy audits for energy management works. The energy management program of the NWSDB has achieved substantial progress with qualitative and quantitative upgrading of its systems.

The new Corporate Plan 2012-2016 was prepared in the previous year by a special committee appointed by the General Manager and year 2013 is the second year under review of the new corporate plan. The NWSDB continued working towards the achievement of the goals and objectives set out by the new Corporate Plan.

Keeping in phase with new world trends, NWSDB has made remarkable attempts to adopt emerging technologies like Geographic Information Systems (GIS), SCADA systems, SMS and mobile based technologies for innovative solutions to enhance the operational efficiency, service quality and customer care services ensuring better customer satisfaction.

NWSDB has developed strategies and work plans to provide safe drinking water to Chronic Kidney Disease of unknown etiology (CKDu) affected areas. The main strategy is to establish small Reverse Osmosis

(RO) plants to purify ground water from wells and boreholes while bowser supplies and pipe line extensions are operated from existing water supply schemes to the areas in close proximity.

During the year 2013, NWSDB has taken initiatives on areas such as implementing like Water Safety Plans covering catchment protection, climate resilience and Disaster Risk Reduction (DRR) management.

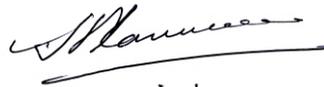
The contribution of engineers for the successful operations and the development initiatives of the NWSDB were very significant. This includes, planning, designs, investigations, feasibility studies, construction, operation & maintenance, process control & optimization and energy conservation which are all taken into careful considerations with a view to achieve economic operations meeting the global environmental obligations.

We are thankful for all the support given by the Hon. Minister of Water Supply & Drainage for the accomplishments of the functions of NWSDB during the year. His directions and guidance with his accomplished experience as the Minister in charge of Water and Sewerage facilities were invaluable for us. We also take this opportunity to extend our thanks to the Secretary to the Ministry of Water Supply & Drainage and all the staff at the ministry for coordination, support and assistance given whenever necessary.

We also take this opportunity to thank the Secretary to the Ministry of Finance and the Heads of Departments in the Treasury for the continuous support by them to achieve progress in all our activities.

We should be grateful to multinational donors and bilateral financiers for giving us a hand for the developments we have brought up throughout the country in water supply and sanitation sector. We thank them for their interest to having participated with NWSDB on development work in the sector.

All the progress we have made through the year is a result of the dedications and efforts by the Members of the Board of Directors and the staff of the NWSDB. Without their dedications, hard work and sacrifices, our achievements would be impossible. We expect their endeavor through the years to come will upgrade the health, social and living standard of the people from all parts of the country by improving the service in water supply and sanitation facilities meeting the consumer satisfaction. Meanwhile, if there are any lapses on the part of the NWSDB, we request our customers to bear with us and inform us for further improvement.



**Karunasena Hettiarachchi**  
Chairman  
National Water Supply & Drainage Board

1<sup>st</sup> March 2014



***“Water, the Hub of Life.***

***Water is its mater and matrix, mother and medium***

***Water is the most extraordinary substance!***

***Practically all its properties are anomolous, which***

***life to use it as building material for its machinery.***

***Life is water dancing to the tune of solids.***

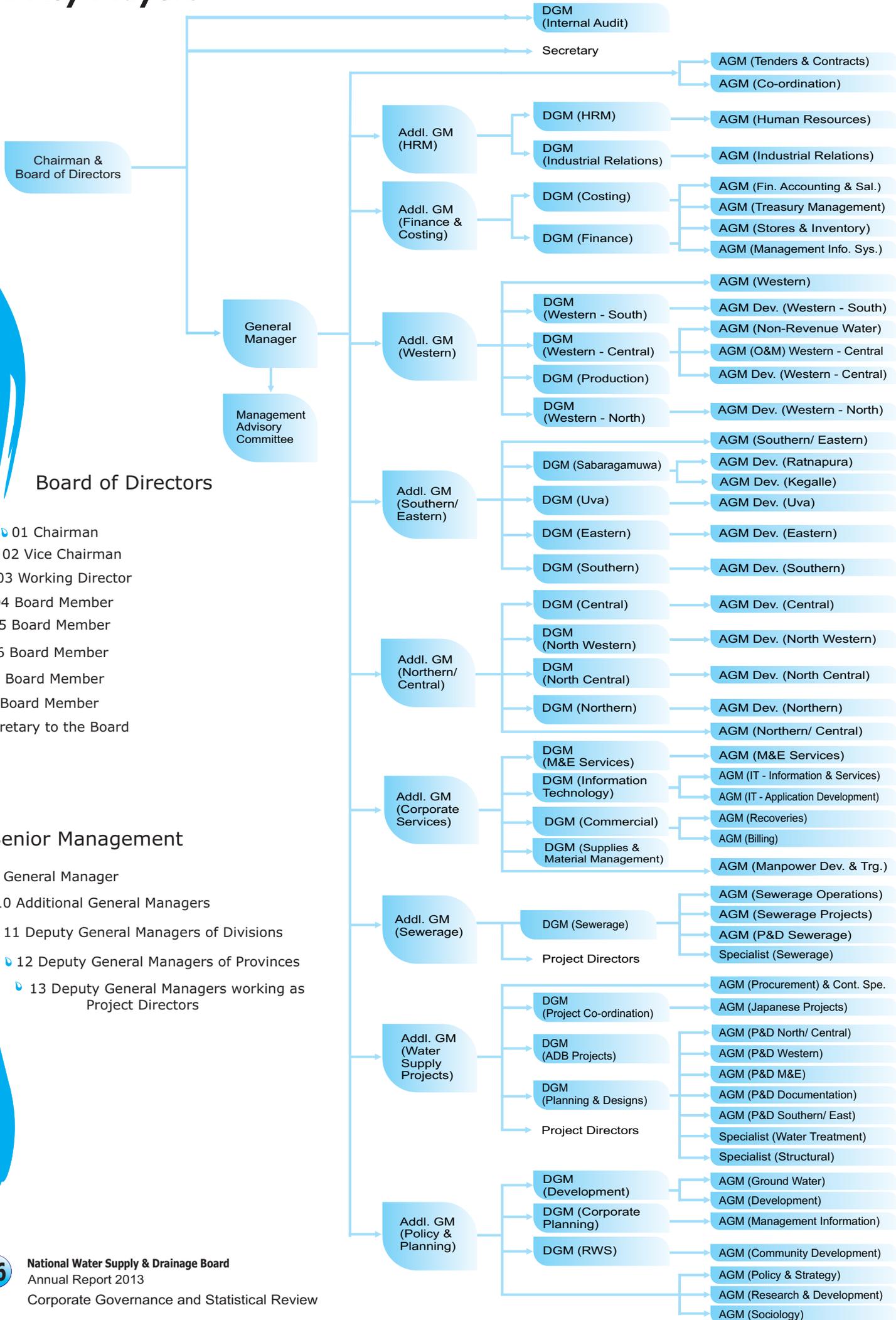
***- Albert Szent - Gyorgyi (1972)***



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Corporate Governance and Statistical Review ▼

# Key Players



## Board of Directors

- 01 Chairman
- 02 Vice Chairman
- 03 Working Director
- 04 Board Member
- 05 Board Member
- 06 Board Member
- 07 Board Member
- 08 Board Member
- Secretary to the Board

## Senior Management

- 09 General Manager
- 10 Additional General Managers
- 11 Deputy General Managers of Divisions
- 12 Deputy General Managers of Provinces
- 13 Deputy General Managers working as Project Directors

## Board of Directors

### 01 Eng. Karunasena Hettiarachchi

B.Sc. Eng. (Hons), M.Sc. (Leuven)  
C.Eng., MIE (SL), MIEP (SL)  
Chairman, NWSDDB

### 02 Mr. K. D. Gamini Gunaratne

Vice Chairman, NWSDDB

### 03 Mr. N. P. Thibbutumunuwa

LLB, BA  
Working Director, NWSDDB

### 04 Dr. P. G. Maheepala

MBBS, M.Sc., MD, MBA, FCMA, DPM, DBS, DED, DMgt.  
Director General of Health Services  
Ministry of Health  
Board Member, NWSDDB

### 05 Mr. A. K. Seneviratne

B.Sc. (Hons), PGD  
(Business and Financial Administration)  
Additional Director General  
Department of National Budget  
Ministry of Finance & Planning  
Board Member, NWSDDB

### 06 Eng. S. Panawennage

M.Sc., MBA, C.Eng., FIE (SL), MIET (UK)  
Director General/ CEO,  
Arthur C. Clarke Institute for Modern Technologies,  
Ministry of Technology & Research  
Board Member, NWSDDB

### 07 Mr. W. G. Premalal

B.L.E. MA (Sociology)  
Senior Assistant Secretary  
Ministry of Local Government & Provincial Councils  
Board Member, NWSDDB

### 08 Mr. P. H. A. S. Wijayarathne

Bus. Adm (Hons), MA (Economics), PGD (SNLDP)  
Additional Director General  
Department of Public Enterprises  
Ministry of Finance & Planning  
Board Member, NWSDDB

## Secretary to the Board

### Mrs. W. P. Sandamali De Silva

B.Sc. Special (Hons)

The Board met on 19 occasions during the year 2013.

## Senior Management

### 09 General Manager

#### Eng. K. L. L. Premanath

(up to 12.07.2013)  
B.Sc. Eng. (Hons), DSE (Netherlands), M.Eng. in  
Const. Management, C.Eng., FIE (SL)

#### Eng. B. W. R. Balasuriya

(from 14.08.2013)  
B.Sc. Eng. (Hons), M.Sc. (UK), C.Eng., MIE (SL)

### 10 Additional General Managers

#### Eng. B. W. R. Balasuriya (Water Supply Projects)

(up to 12.07.2013)  
B.Sc. Eng. (Hons), M.Sc. (UK), C.Eng., MIE (SL)

#### Eng. G. A. Kumararathna (Sewerage)

B.Sc. Eng. (Hons), M.Sc. (UK), C.Eng.,  
FIE (SL), MICE (Lond.), MIWEM (Lond.)  
P.G. Dip. in Industrial Eng.

#### Eng. D. N. J. Ferdinando (Policy and Planning)

B.Sc. Eng., M.Eng. (Env.), MICE (Lon.), MCIWEM (UKL),  
FIE (SL)

#### Eng. (Mrs.) P. N. S. Yapa (Northern/ Central)

B.Sc. Eng. FIE (SL), C.Eng., M.Sc. (Struc. E.), UK

#### Eng. D. S. D. Jayasiriwardene (Southern/ Eastern)

B.Sc. Eng. (Hons), C.Eng., FIE (SL),  
M.Phil (Univ. of Hawaii)

#### Eng. K. R. Devasurendra (Corporate Services)

B.Sc. Eng. (Hons), FIE (SL), C.Eng., P.G. Dip.,  
S.E. (Delft), MCPM

#### Mr. D. Thotawatte (Finance)

(from 26/06/2013)  
B.Com (Sp.), ACA, MA (Fin. Econ)

#### Mr. G. K. Iddamalgoda (Human Resource Management)

(from 23/07/2013)  
B.Sc. (B. Admin), Dip. in Per. Mgt.  
MA (Mgt. & Admin) London

#### Eng. N. M. S. Kalinga (Western)

(from 22/11/2013)  
B.Sc. Eng. (Hons), MIE (SL), C.Eng.,  
Dip. Sanitary Eng. (Netherlands)



## 11. Deputy General Managers of Divisions

### **Eng. (Mrs.) K. T. P. Fernando (Project Co-ordination)**

B.Sc. Eng. (Hons), C.Eng., MIE (SL)  
M.Sc. in Water & Waste Engineering (UK)

### **Mr. H. Ariyasena (Human Resources & Industrial Relations)**

(up to 02/08/2013)  
B.Sc. (Business Administration) Sp.  
Dip. in Personnel Management

### **Ms. W. A. C. Sriyani (Human Resources)**

(from 05/08/2013)  
B.A. (Arts) Special Degree (Sociology)  
M.Sc. in Disaster Management, Dip. in Personal Mgt.,  
Dip. in Training & Development, Member (IMSL)

### **Mrs. N. Y. S. Abeygunawardena (Industrial Relations)**

(from 05/08/2013)  
BA, Post Graduate Dip. in Management (PIM), Member (IMSL)

### **Eng. C. R. Perera (Production - Western)**

C.Eng., MIE (SL), M.Eng. (Delft)

### **Eng. W. A. N. Wickramathunge (M&E)**

B.Sc. Eng., MIE (SL), C.Eng.

### **Eng. J. Chandradasa (Information Technology) - Covering up**

B.Sc. Eng., C.Eng., MIE (SL)

### **Eng. S. G. J. Rajkumar (Development)**

C.Eng., FIE (SL), M.Sc. in Sanitary Engineering,  
M.Sc. in Environmental Engineering and Management

### **Eng. R. S. C. George (Corporate Planning)**

B.Sc. Eng. (Hons), C.Eng., MIE (SL),  
M.Sc. (Eng.), FRG, MICE (UK)

### **Mr. R. M. A. S. Weerasena (Internal Audit)**

B.Com (Sp.), PGDBM (Col.), ACA

### **Ms. M. M. S. Peiris (Finance - Acting)**

B.Sc. (Accountancy & Finance Mgt.)  
ACA (SL)

### **Ms. A. P. Sirima De Silva (Costing)**

FCA

### **Mr. M. S. M. Aslah (Supplies and M.M.)**

B.Sc., Dip. P&MM, MISMM  
PG Dip. in Mgt, MIM (SL)

### **Eng. R. H. Ruvinis (Planning & Design)**

B.Sc. Eng. (Hons) PGDIP (App Hy)  
MBA, FIE (SL), C. Eng. MIE (Aus). CP Eng.

### **Eng. S. G. Jayawardena (Sewerage)**

B.Sc., PG.Dip. in Sanitary Eng., MIE(SL),  
(from Sept. 2013)

## 12. Deputy General Managers of Provinces

### **Eng. W. B. G. Fernando (Western - Central)**

B.Sc. (Eng.), P.G. Dip. (EWREM), FIE (SL), C.Eng.

### **Eng. M. K. Hapuarachchi (Western - South)**

C.Eng., MIE (SL), P. G. Dip. in Environmental Engineering & Management.

### **Eng. K. J. V. A. Perera (East)**

B.Sc. Eng., FIE (SL), M.Eng. (Sanitary) IHE (Delft),  
P. G. Dip. in Environmental Engineering and Management

### **Eng. (Mrs.) M. K. Bandara (Western - North)**

B.Sc. Eng. (Hon.), MIE (SL)  
M.Eng. (Sc.) in Public Health Eng. (NSW), Australia

### **Eng. L. L. A. Peiris (Central)**

B.Sc. (Eng.) Civil Engineering (University of Moratuwa - SL),  
C.Eng., FIE (SL), Int. PE (SL), M. Phil (IWRM), University of  
Peradeniya, SL, P.G. Dip. (Water and Wastewater Eng.), AIT,  
Bangkok,

### **Eng. M. I. A. Lathiff (Uva)**

M.Sc. Eng. (Russia), C.Eng., FIE (SL), MIE (India),  
PG Dip., BFA (SL)

### **Eng. N. E. M. S. B. Ekanayaka (North Central)**

B.Sc. Eng., C.Eng., MIE (SL), M.Sc. IHE (Delft)

### **Eng. D. U. Sumanasekara (North Western)**

B.Sc. Eng. (Hons) M.Sc. (Netherlands), C.Eng., FIE (SL)

### **Eng. D. F. S. de F. Gunawardene (North)**

B.Sc. Eng., C. Eng., MIE (SL), M.Eng. IHE (Delft)

### **Mr. R. A. B. S. Mendis (Sabaragamuwa)**

B.Sc. Eng., C.Eng., MIE (SL), M.Sc. in Sanitary Eng. (Netherlands)

### **Eng. S. G. Jayawardena (Southern)**

B.Sc., P.G.Dip. Sanitary Eng., MIE(SL),  
(up to Sept. 2013)

## 13. Deputy General Managers working as Project Directors

### **Eng. (Mrs.) C. J. D. Perera (PD - Kalu Ganga Water Supply Project - Phase I - Stage II)**

B.Sc. Eng. (Hons), C.Eng., MIE (SL),  
Dip. Sanitary Eng. (Netherlands), Dip. Environmental Eng. (SL)

### **Eng. J. R. B. Nadurana (PD - ADB 5<sup>th</sup> Project)**

B.Sc. Eng. (Hons), P.G. Dip. in Environmental  
Science & Technology (Delft.)  
C.Eng., MIE (SL),

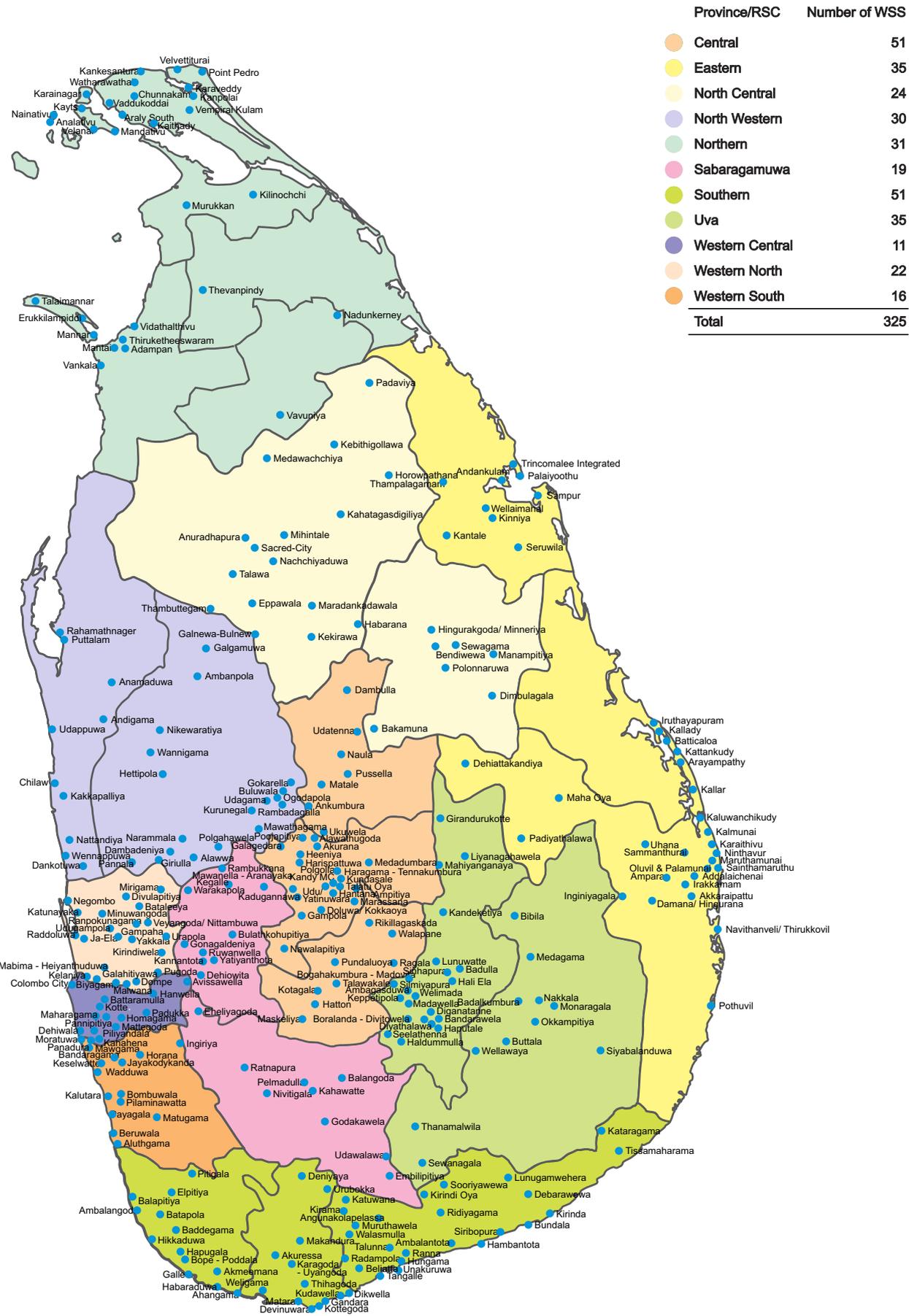
### **Eng. R. Kulanatha (Wastewater disposal for Rathmalana Moratuwa & Ja-Ela/Ekala Area)**

B.Sc. Eng., C.Eng., MIE (SL),

### **Eng. B. S. Wijemanna (Greater Colombo Rehabilitation Project)**

B.Sc. Eng., M.Eng. Hydrology and Water Resources, IHE (Delft),  
Dip. in Construction Management  
C.Eng., MIE (SL),

# Existing Water Supply Schemes



Province/RSC	Number of WSS
Central	51
Eastern	35
North Central	24
North Western	30
Northern	31
Sabaragamuwa	19
Southern	51
Uva	35
Western Central	11
Western North	22
Western South	16
<b>Total</b>	<b>325</b>

## Corporate Planning

With a view of promoting employee satisfaction and generating better employee performance, 7 committee meetings were held. Two presentations on “Change of Attitude by Improving Knowledge on Fundamentals” were made to the senior staff of the NWSDB in 2013 to pursue this matter and it was well received.”

### Implementation status of the Corporate Plan 2012 - 2016

The year under review was the second year of our new Corporate Plan. The Corporate Plan 2012-2016 was prepared by a special committee for the 5 year period appointed by the General Manager, comprising of 15 senior managers of the NWSDB.

The NWSDB continued working towards the achievement of the goals and objectives set out by the new Corporate Plan. Special emphasis was given during the year 2012 for formulating policy matters, setting procedures and planning items relating to the next three years of the plan, were continued during 2013.

A new Goal has been included to promote information and communication technology solutions as a catalyst for business growth. This is to enhance the capacity of IT applications within the NWSDB. Services hitherto outsourced are to be carried out in-house and the necessary strategies and activities have been worked out.

It was considered important to have timely reviews for the successful achievement of the goals, objectives and the targets set.

Quarterly progress on the Corporate Action Plans are presented to the Members of the Board by every manager responsible for a particular goal (there are seven such goals, overseen by a designated Accountable Manager for every goal). Accordingly, 2012 4<sup>th</sup> quarter, 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> quarter progress reports of 2013 on the Corporate Action Plans were presented to the Members of the Board at Board meetings held in 2013.

Activities towards the goal on water supply and sanitation coverage were being carried out throughout the country. Special efforts taken to reduce NRW and power cost during 2013 are noteworthy. Services to customers require improvement.

Promoting Institutional Development is a Corporate Goal. A special committee headed by the Addl. GM (N/C) actively pursued activities to achieve this important goal. With a view of promoting employee satisfaction and generating better employee performance, 7 committee meetings were held. Two presentations on “Change of Attitude by Improving Knowledge on Fundamentals” were made to the senior staff of the NWSDB in 2013 to pursue this matter and it was well received. In addition to that, 5S concept was implemented for improving the productivity in every section in the NWSDB head office, Telawala premises and Pelawatte premises. Arrangements were made to select the section with the best implementation of 5S programme under “Identify Infrastructure Development Activities” in the NWSDB.

Both the Internal Audit Division and the Government Audit Branch worked on the accountability and transparency issues. The CKDu affected, the marginalized and the rural community without safe water supply facilities were given importance within the available means.



Workshop on Human Resource Development

## Progress Towards Stated Goals

Goal	Key Objectives	Target end 2013	Achievement end 2013
1. Increase the water supply and sanitation coverage	1.1 Total Pipe-borne water supply coverage	44.5%	43.7%
	1.2 Piped sewerage coverage	2.4%	1.92%
	1.3 Access to safe drinking water supply coverage	85.0%	84.9%
	1.4 Total sanitation coverage	86.5%	86.33%
2. Improve business efficiency	2.1 NRW (island-wide)	28.87%	30.24%
	2.2 Total staff for 1,000 connections	5.84	5.83
	2.3 Expenditure on power to total recurrent cost	22.47%	22.77%
	2.4 Maintenance expenses to total recurrent cost	4.22%	5.07%
	2.5 Establishment expenses to total recurrent cost	9.90%	11.11%
3. Improve services to customers and promptly attend to public complaints	3.1 Public awareness programmes to be carried out all island (schools/other)	100 Nos.	116 Nos.
4. Promote information and communication technology solutions as a catalyst for business growth	4.1 Estimated bills to total number of bills	5.0%	1.1%
	4.2 Collection efficiency	100.0%	101%
	4.3 Accounts receivable from -		
	(a) domestic and commercial institutions	50 days	55 days
	(b) Government institutions	60 days	41 days
5. Ensure greater accountability and transparency	<p>Initiatives were taken to develop a whole range of management and business tools on human resource development, management information system and business plan.</p> <ul style="list-style-type: none"> <li>• Delegation of financial authority</li> <li>• Training on budgetary control &amp; financial regulations</li> <li>• Audits on commercial operations</li> <li>• Audits on stores and supplies</li> <li>• Audits on cash/ cheque payments</li> <li>• Audits on construction contracts</li> <li>• Valuation of assets</li> <li>• Improved Management Information and Coordination</li> </ul>		
6. Promote Human Resource Development	6.1 In-house training (no. of participants)	2700	7225
	6.2 In-country external training (no. of persons)	150	245
	6.3 Overseas training (no. of persons)	75	187
7. Facilitate safe drinking water supply and sanitation to rural and underserved communities	7.1 RWS Schemes maintained by CBOs, LAs and others under the NWSDB backup support	10.0%	10.9%

## Key Performance

“Staff recruitments were kept under control, while the ratio of staff per thousand service connections was reduced to 5.83.”

During the year, 120,079 new service connections were provided bringing the total pipe-borne water supply coverage in the country close to the target. However, the population that was covered with piped drinking water supplied by the NWSDB was 32.8 % which is less than the value in 2012 (34.0%). This reduction was due to the revision of family size from 4.25 to 3.91 based on the results of 2012 census published by the Department of Census and Statistics.

Service levels to existing consumers were improved by commissioning several major and minor water supply projects in different parts of the country. Projects being implemented in war affected Northern and Eastern areas rehabilitated and reconstructed water supply and sewerage facilities, thereby improving the livelihood of those affected. Project components are not limited to restoration of damaged utilities but include provision of water supply and sanitation facilities to resettlement areas, improvement of service levels in affected areas and extensions to new development areas in the vicinity.

Staff recruitments were kept under control, while the ratio of staff per thousand service connections was reduced to 5.83.

The last water tariff was revised in October 2012 after three years and seven months. The Board had faced many difficulties in managing their cash flow during last four years. Most of the prices of operational expenses were increased. Therefore the debt service commitment could not be fully met with respect to the year 2009 and 2010. But the total outstanding in 2011, 2012 and 2013 has been fully settled to the General Treasury. The NWSDB has recorded Rs. 421,409,965.00, Rs. 366,802,512.00, Rs. 1,002,860,406.00 after tax profit for the last consecutive three years since 2011.

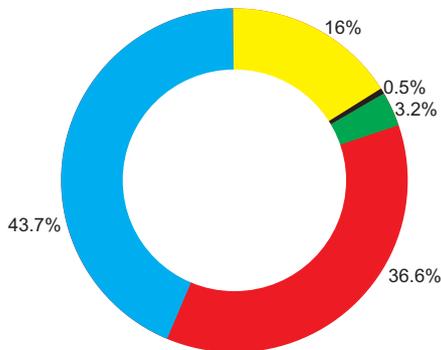
Non-revenue water (NRW) includes authorized but unbilled water supply to tenement gardens and public sanitary facilities in Colombo. The NWSDB is compelled to continue this service, which was provided earlier by the CMC. If authorized but unbilled water supplies in Colombo City (estimated at 5% of the water supplied) are excluded, unaccounted for water in Colombo City would be 43%. NRW in the Western Province and nationwide would be 33.43% and 30.24% respectively.

### General

There are 325 major, medium and small water supply schemes in operation under the NWSDB's purview. Out of these, 40 schemes cover major cities and 285 schemes cover townships and villages.

3.2% of the population is covered with hand-pump tube wells. Community management is promoted with regard to rural water supply schemes through community-based organizations. Proper rain water harvesting was considered as an acceptable option for drinking water source.

### Access to Safe Water Coverage



	2012	2013	Variation (%)	
<b>KEY STATISTICS: WATER SUPPLY</b>				
No. of Water Supply Systems	323	325	0.6	
Piped Water Production (million cu.m.)	526	547	4.0	
Piped Water Consumption (million cu.m.)	368	382	3.8	
Domestic Connections (Nos.)				
(a) Western Province	677,427	717,819	6.0	
(b) Other Provinces	789,189	860,021	9.0	
<b>Total Domestic Connections</b>	1,466,616	1,577,840	7.6	
Public Stand Posts (Nos.)				
(a) Western Province	2,345	834	(64.4)	
(b) Other Provinces	2,403	2,193	(8.7)	
<b>Total Public Stand Posts</b>	4,748	3,027	(36.2)	
Non-Domestic Connections (Nos.)				
(a) Western Province	58,595	64,695	10.4	
(b) Other Provinces	57,704	65,212	13.0	
<b>Total Non-Domestic Connections</b>	121,047	129,907	7.3	
(Including total public stand posts)				
<b>Total No. of Service Connections</b>	1,587,663	1,707,747	7.6	
Average Household Monthly Consumption (cu.m. per house connection)				
(a) Western Province	17.24	16.90	(2.0)	
(b) Other Provinces	13.13	12.46	(5.1)	
Average Household Bill Value per Month (Rs.)				
(a) Western Province	622.76	727.37	16.8	
(b) Other Provinces	346.06	414.79	19.9	
Total Revenue (Rs. million - with VAT)	15,088	18,167	20.4	
Total Recurrent Expenditure (Rs. million)	13,661	15,363	12.5	
Non-Revenue Water (%)				
(a) Western Province	32.66	33.43	2.4	
(b) Other Provinces	26.06	25.74	(1.2)	
(c) Island-wide	29.89	30.24	1.2	
O&M Staff/ 1,000 Connections	5.10	4.83	(5.3)	
Total Staff/ 1,000 Connections	6.09	5.83	(4.3)	
Average Recurrent Cost of Water Production (Rs./cu.m.)	25.99	28.08	8.0	
Average Total Cost/ Unit Sold (Rs./cu.m.)	44.07	45.39	3.0	
Average Unit Revenue (Billing/ Consumption) (Rs./cu.m.)	40.95	47.60	16.2	
Collection Efficiency	0.98	1.01	3.1	
Deep Wells (Nos.)				
(a) Drilled	390	323	(17.2)	
(b) Successful	339	288	(15.0)	
Development Expenditure (Rs. million)	31,740.02	28,491.28	8.2	
<b>KEY STATISTICS: SEWERAGE</b>				
Domestic Connections				
Western Province	9,089	10,281	13.1	
Other Provinces	886	886	0	
Non-Domestic Connections				
Western Province	552	674	22.1	
Other Provinces	147	157	6.8	
Housing Scheme Connections (Bulk)				
Western Province	3,603	2,579	(28.4)#	
Other Provinces				
<b>Total Sewerage Connections</b>	All Island	14,277	14,577	2.1

# 2,138 House scheme connections maintained by NWSDB in CMC area was transferred to CMC by end of 2012.

# Summary of Operations

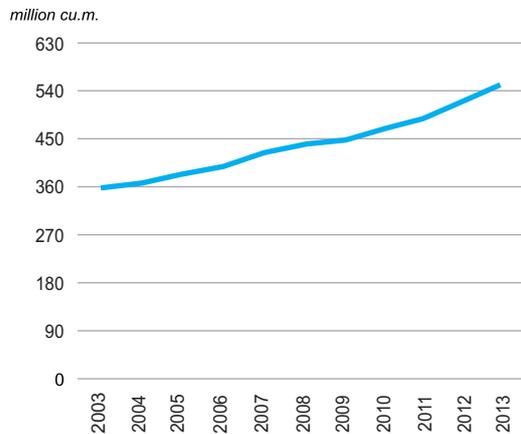
“The Western Province water supply system claims the major share of production through four centres at Ambatale, Labugama, Kalatuwawa and Kandana in Kalutara amounting to 59% of the total water produced by the NWSDB”

## WATER SUPPLY

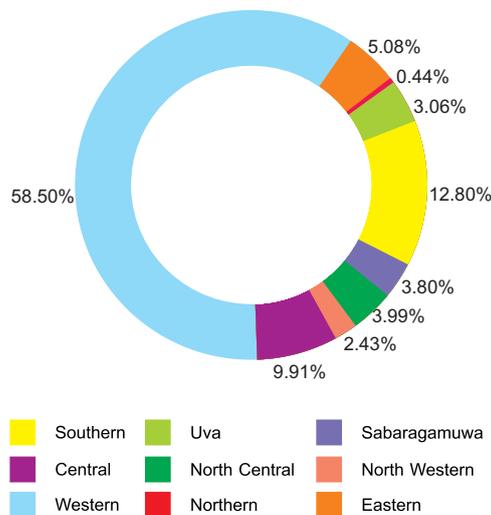
### Drinking Water Production

The total quantity of drinking water produced in 2013 was 547 million cu.m. The trend during the last 10 years is given in the chart. The Western Province water supply system claims the major share of production through four centres at Ambatale, Labugama, Kalatuwawa and Kandana in Kalutara amounting to 59% of the total water produced by the NWSDB.

### Water Production



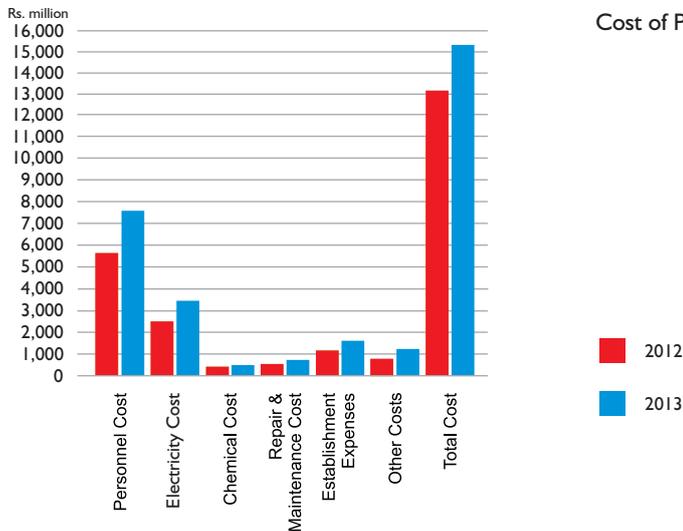
### Water Production by Provinces



### Cost of Production:

Breakdown of the cost of production (Rs. million) in comparison with 2012 is shown below:

#### Cost of Production



Cost of Production Rs. /cu.m. (per 1,000 litres)

**2012**  
44.07

**2013**  
45.39

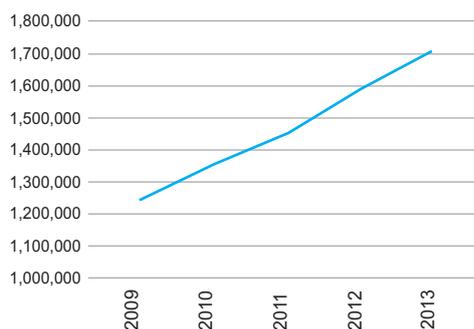
Cost of Production = Total Cost / Units Sold  
= (Total Recurrent Cost + Interest on commissioned projects + Depreciation) / (Quantity sold)

### Comparison of Service Connections

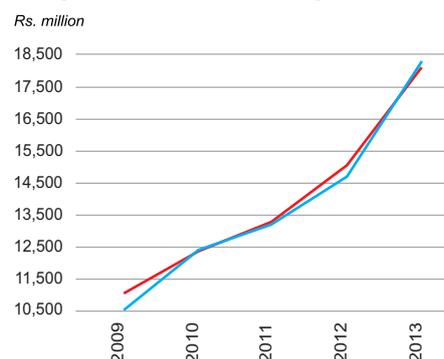
Province/ RSC	No. of Connections Province/ RSC-wise			NWSDB Region	No. of Connections Region-wise		
	As at end December 2012	As at end December 2013	Change %		As at end December 2012	As at end December 2013	Change %
Western - Central	378,237	<b>390,230</b>	3.2	Priority	2,771	<b>2,788</b>	0.6
				Colombo City	132,167	<b>134,008</b>	1.4
				TEC North	139,115	<b>143,695</b>	3.3
				TEC South	104,184	<b>109,739</b>	5.3
Western - North	177,981	<b>198,230</b>	11.4	TNC	128,039	<b>144,305</b>	12.7
				Gampaha	49,942	<b>53,925</b>	8.0
Western - South	182,149	<b>194,054</b>	6.5	TSC	94,824	<b>97,103</b>	2.4
				Kalutara	48,366	<b>52,027</b>	7.6
				Panadura	38,959	<b>44,924</b>	15.3
Central	198,512	<b>211,940</b>	6.8	Kandy North	73,739	<b>78,281</b>	6.2
				Kandy South	71,144	<b>67,420</b>	(5.2) <sup>#</sup>
				Kandy East	53,629	<b>65,744</b>	22.6
North Western	53,930	<b>58,808</b>	9.0	Kurunegala	53,930	<b>58,808</b>	9.0
North Central	80,314	<b>85,912</b>	7.0	Anuradhapura	80,314	<b>85,912</b>	7.0
Sabaragamuwa	80,528	<b>85,367</b>	6.0	Ratnapura	35,397	<b>37,612</b>	6.3
				Kegalle	45,131	<b>47,755</b>	5.8
Southern	239,719	<b>260,842</b>	8.8	Hambantota	79,632	<b>87,580</b>	10.0
				Matara	75,241	<b>82,165</b>	9.2
				Galle	84,846	<b>91,097</b>	7.4
Uva	63,248	<b>68,955</b>	9.0	Bandarawela	37,375	<b>40,463</b>	8.3
				Monaragala	25,873	<b>28,492</b>	10.1
Northern	7,922	<b>9,088</b>	14.7	Jaffna	1,692	<b>2,088</b>	23.4
				Mannar	4,603	<b>5,319</b>	15.6
Eastern	125,123	<b>144,321</b>	15.3	Vavunia	1,627	<b>1,681</b>	3.3
				Ampara	23,734	<b>26,699</b>	12.5
				Trincomalee	36,135	<b>38,680</b>	7.0
				Akkaraipattu	50,956	<b>55,820</b>	9.5
				Batticaloa	14,298	<b>23,122</b>	61.7
<b>Total</b>	<b>1,587,663</b>	<b>1,707,747</b>	7.6	<b>Total</b>	<b>1,587,663</b>	<b>1,707,747</b>	7.5

# Reduction of number of connection is due to the transferring of some connections in Kandy South region to Kandy East region.

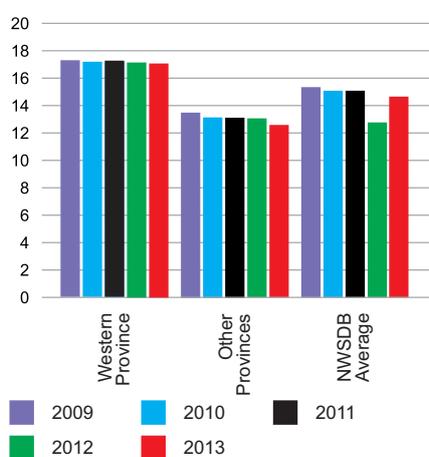
## Growth of Connections



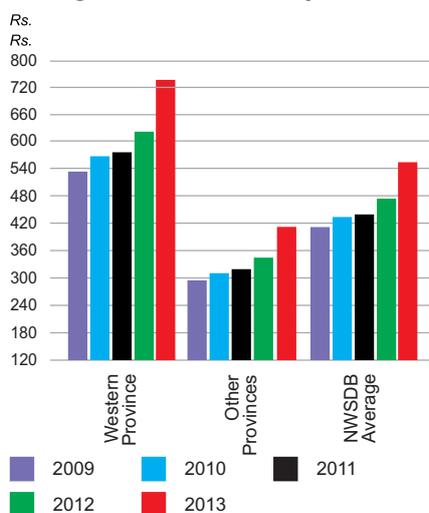
## Comparison of Annual Billing and Collection



## Average Household Monthly Consumption (cu.m per Connection)



## Average Household Monthly Bill



## Billing Statistics

Description	2012	2013
Billing Target (Rs. million)	14,216	<b>18,634</b>
Actual Billing (Rs. million)	15,088	<b>18,167</b>
Collection Target (Rs. million)	14,074	18,448
Actual Collection (Rs. million)	14,716	18,366

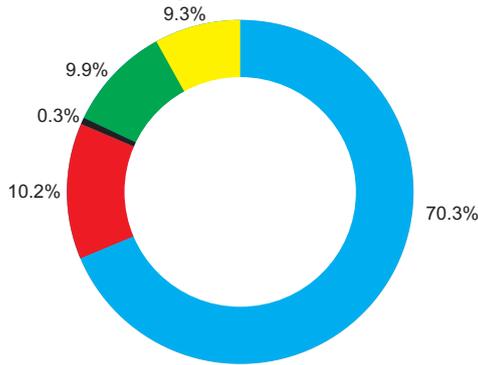
## Quantity of Water Sold and Revenue by Consumer Categories (2013)

Consumer Category	Quantity sold		Revenue	
	cu.m '000s	%	Rs. million	%
Direct billing #	270,026	70.3	10,431	57.4
Schools	5,000	1.3	113	0.6
Tenement gardens	4,094	1.1	141	0.8
Public stand-post supply	1,147	0.3	17	0.1
Government institutions, NWSDB premises	35,556	9.3	2,487	13.7
Commercial and industrial	37,825	9.9	3,697	20.4
Tourist hotels	2,385	0.6	217	1.2
Shipping	125	0.0	68	0.4
Board of Investment	8,055	2.1	559	3.1
Religious premises	4,678	1.2	108	0.6
<b>Subtotal</b>	<b>368,892</b>	<b>96.1</b>	<b>17,838</b>	<b>98.2</b>
Bulk billing	9,375	2.4	183	1.0
Others*	5,705	1.5	146	0.8
<b>Grand Total</b>	<b>383,971</b>	<b>100.0</b>	<b>18,167</b>	<b>100.0</b>

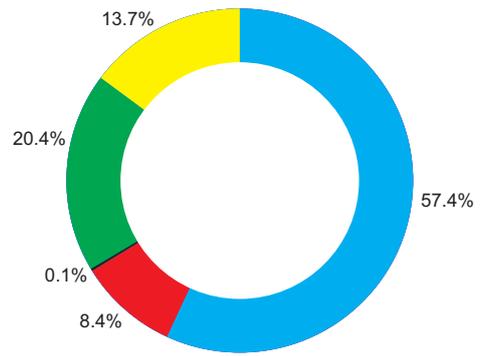
# Domestic, NWSDB Quarters, Government Quarters, Condominium, Domestic Non-Vat, Domestic Samurdi & Tenement Samurdi

\* All other billing categories have been grouped under 'Others'. Setting-off rebates have also been included in this category.

**Percentage Quantity of Water Used by Consumer Categories**



**Percentage Revenue by Consumer Categories**

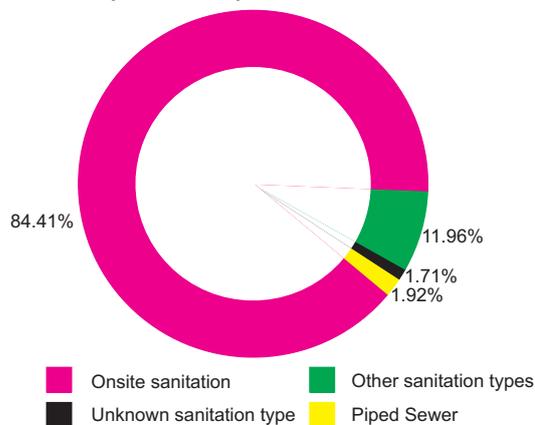


**SEWERAGE**

The Greater Colombo Sewerage Section is responsible for the operation and maintenance of the sewerage systems of Dehiwala-Mt.Lavinia Municipal Council area, Kolonnawa Urban Council area and sewerage pump houses and pumping mains of some NHDA housing schemes and several government institutions in the Greater Colombo area. There are about 14,577 sewer connections maintained by the NWSDB.

Accordingly, Soysapura, Mattegoda, Jayawadanagama and Maddumagewatta housing schemes and the government institutions like Presidential Secretariat, Speaker’s Residence, Parliament (water and sewerage), Sethsripaya (water and sewerage), Isurupaya (water and sewerage), Jayawardanapura Hospital, etc are maintained by the NWSDB.

**Graphical Presentation of Present Sanitation Scenario (End of 2013)**



**Special events taken place in the Division**

**(i) Sewerage tariff**

Sewerage tariff was first introduced based on water consumption of consumers in the sewerage schemes

maintained by the NWSDB in 2008. Cabinet Approval was obtained on 15.12.2011 for the introduction of revised sewerage tariff wherever sewerage services are available and revised tariff was introduced.

With effect from January 2012. As per the new revision, the domestic sewerage charge includes a fixed charge of Rs.200.00 in addition to the usage charge, which remains unchanged from previous tariff.

Subsequently, a concession of Rs.100.00 from the fixed charge to low consumptive domestic water consumers who has monthly consumption less than 15 units was implemented.

**(ii) Commissioning of New Schemes**

Newly constructed Ja Ela Sewerage Scheme was ceremonially opened by Hon. Basil Rajapaksha, Minister for Economic Development in January 2013. Moratuwa/Ratmalana Wastewater Treatment plant also to be commissioned next.



Treatment Plant at Ratmalana too being commissioned

**New Connections**

Total sewer connections given during the year as follows.

Domestic sewer connections	1,192 nos.
Non- domestic sewer connections	132 nos.

### **Institutional Development Activities**

#### ***(I) Establishment of a Regional Manager's Office at JaEla/Ekala***

A Regional Manager's Office was established at JaEla/ Ekala for better operation and maintenance activities for JaEla/Ekala Sewerage Scheme. In future, Raddoluwa and Biyagama sewerage schemes too will be added to the Manager (JaEla/ Ekala).

#### ***(ii) Quarters for Executive and Non-Executive Staff at Soysapura***

Action has been taken to construct 04 quarters for executive and 4 quarters for non executive staff at Soysapura, Ratmalana at the cost of Rs. 62.1 million.

#### ***iii) Develop a Quality Management System for Sewerage Section***

Board approval has been obtained and a tender has been called to appoint a Consultant to develop Quality Management System for Sewerage Section to achieve ISO 9001;2008 certificate within planed time frame.

A seminar has been conducted during World Quality Week at Training Centre Telawala to the staff of Sewerage Section on ISO 9001;2008 Quality Certification.

### **Other Productivity Improvement Activities**

#### ***(i) Detecting and Legalizing of Un-Billed Sewer Connections***

Survey for detecting of Un-Billed Sewer Connections has been carried out in Dehiwala-Mt. Lavinia and identified 693 such connections. Actions have been taken to legalize them with 1-2 year penalty for loss of revenue.

#### ***(ii) Island wide awareness programmes on implementing Existing Code of Practices of Wastewater Discharge***

It was planned to organize Island wide awareness programmes on implementing Existing Code of Practices of Wastewater Discharge when implementing building Construction.

## Summary of Investments

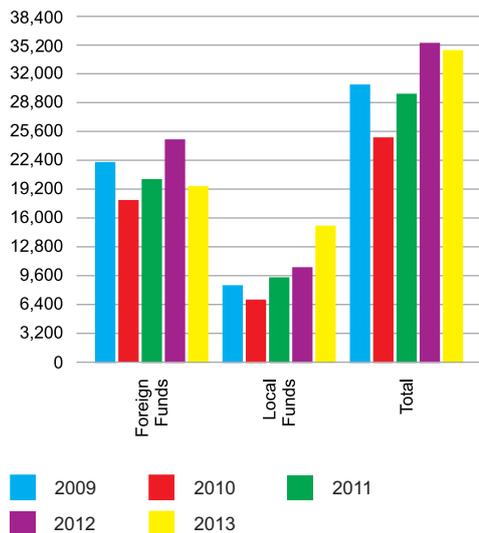
“The NWSDB was provided with Rs. 18,862.20 million as foreign funds for capital works on water supply and sewerage projects. The GOSL contribution was Rs. 10,355.70 million as counterpart funds.”

### Financial Sources

The NWSDB was provided with Rs. 18,862.20 million as foreign funds for capital works on water supply and sewerage projects. The GOSL contribution was Rs. 10,355.70 million as counterpart funds. In addition, Rs. 3,499.00 million of local consolidated funds were allocated for small and medium water supply projects. For the reconstruction of tsunami affected water supply systems, a sum of Rs. 523.00 million in foreign funds and Rs. 379.30 million in local counterpart funds were provided. For the purpose of water sector community facilitation a sum of Rs. 265.00 million in foreign funds and Rs. 880.00 million in local counterpart funds were provided.

### Capital Budget Allocations

Rs. million



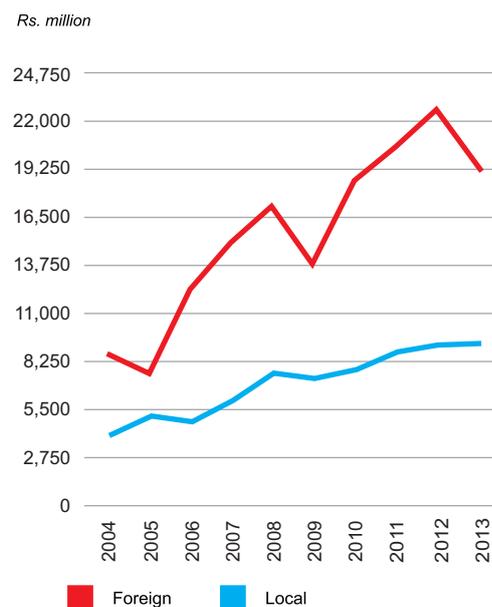
The annual allocation for Water Supply & Sewerage shows a significant drop from Rs. 30.9 billion in 2009 to Rs. 24.99 billion in 2010. Then it shows a continuous increase and again there is a drop in allocations from Rs. 35.33 billion in 2012 to Rs 34.76 billion in 2013.

### Utilization of Capital Funds

Capital fund utilization stood at 82% in 2013 whereas it was 90% in 2012. A new budget line for Water Sector Community Facilitation was included in 2012 and for the same, Rs. 1,145.00 million had been allocated in 2013.

GOSL funds physically getting from treasury is very slow and most of the projects got the tax exemption and custom and duty exemption. Hence the GOSL counterpart expenditure seems to be low.

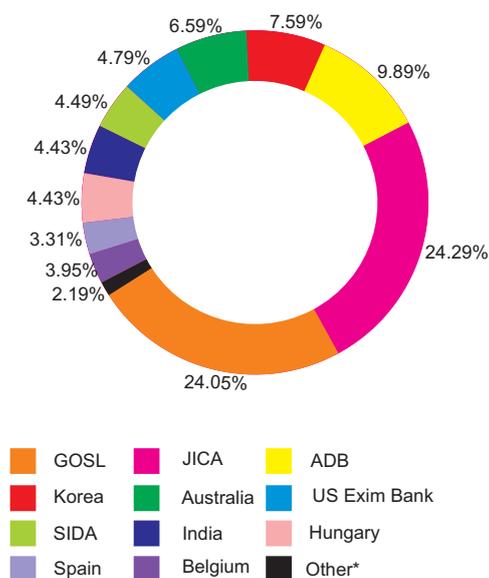
### Capital Fund Utilization



### Comparison of Capital Fund Utilization 2012/ 2013

Description	2012		2013	
Foreign Component (Rs. million)	22,637	92.0%	19,238	98.0%
Foreign Aid Related Domestic Component (Rs. million)	6,571	87.0%	6,272	54.0%
Consolidated Funds for Local Projects (Rs. million)	2,532	78.0%	2,981	85.0%
<b>Total</b>	<b>31,740</b>	<b>90.0%</b>	<b>28,491</b>	<b>82.0%</b>

### Foreign Aid Contribution by Donors and Related GOSL Funds



\* Danida, French, World Bank

### Rehabilitation and Improvement of Existing Water Supply Schemes

The NWSDB continued to rehabilitate and improve existing water supply schemes using Rs. 958.22 million of its own finances in 2013. These funds were used to improve the quality and quantity of water supplies, maintain NWSDB assets and undertake related support services in operational activities. That means NWSDB spent Rs. 690.30 million for rehabilitation, Rs. 164.52 million for reduction of NRW and Rs. 61.80 million for pipe line extension. Priority was given to improvements in schemes where donor assistance or major funding was not available.

### GOSL Funding through small-scale Infrastructure Rehabilitation and Upgrading Projects

There are locally funded projects planned, designed and expended by the NWSDB. The implementation of the projects are supervised by the respective provincial staff and taken over by the provincial O&M staff when completed.

Under the locally funded Capital Works Programme, 25 new water supply projects and rehabilitation and augmentation of further 26 water supply schemes were continued in 2013.

85% of the allocation has been utilized during the course of the year.

Almost all the locally funded projects were started 6 to 8 years ago. Owing to small annual budget allocation these projects have been prolonged. As a result, their Total Cost Estimates have increased due to price escalations. Furthermore, local funds have not been released on time to settle the contractors' claims for the work done. There was a delay of several months, which caused a negative effect on contractors' cash flow.

### District-wise Capital Works Programme 2013

District	Allocation 2013 Rs. million	No. of Projects with Allocation	Beneficiaries
Ampara	311.4	3	30,000
Anuradhapura	260.5	4	172,000
Badulla	132.0	2	27,500
Colombo	159.1	2	169,600
Galle	104.3	5	95,700
Gampaha	108.8	3	52,000
Kalutara	194.9	1	120,000
Kandy	152.0	2	152,000
Kegalle	108.0	4	66,800
Kurunegala	165.0	4	106,185
Matale	22.0	2	37,000
Matara	106.0	2	16,000
Monaragala	92.1	4	55,750
Nuwara Eliya	10.0	1	15,000
Polonnaruwa	249.3	2	74,800
Jaffna	75.0	1	200,000
Ratnapura	156.6	6	139,800
Trincomalee	759.7	3	385,000
<b>Total</b>	<b>3,166.7</b>	<b>51</b>	<b>1,918,135</b>

### Details of Projects Completed during the year 2013

RSC	Project Name
Central	Towns South of Kandy WSP (Iron removal plant of Elpitiya WS)
Eastern	Trincomalee Integrated Infrastructure Project Muttur- Trincomalee WS (Under ADB 4th Project)
North Central	Lolugaswewa WS (Extention under Dayata kirula 2012) Thisawewa package plant (Rehabilitation under Dayata Kirula 2012) Thambuththegama package plant (Rehabilitation under Dayata Kirula 2012) Anuradhapura WSS (Under ADB 4th Project)
North Western	Divulagane WS – Sub project under Capital budget
Northern	Mannar transmission main (under ADB 5th project) Kilinochchi package plant Madu WS – Stage I (S&M) Under Emergency Northern Recovery Water Supply Project (Pandiyankulam, Mallavi, Valvatithurai, Nadunkerny, Maruthankerny, Adampan, Vidathalathive, Thevanpidy, Oddusudan)
Sabaragamuwa	Pahala Kadugannawa (S&M)
Southern	Pitabeddara WS (S&M)
Uva	Ohiya Transmission (S&M) Ambagasdowa stage I (S&M) Monaragala WS Stage II (S&M) Badalkumbura WS (S&M) Wellaway WS (S&M)
Western	Consultancy services for Non Revenue Water (NRW) Engineering study, Master Plan Update and Institutional development. Capacity development project for NRW reduction in Colombo city (JICA)
Interprovincial	Hambantota, Ambalantota, Weligama, Kataragama, Implementation project and Badulla, Bandarawela Integrated feasibility studies. (UNIHA)

## Employees

“NWSDB’s Manpower Development & Training Division continued to provide training opportunities to employees during 2013, as in the past”

### Staff Strength

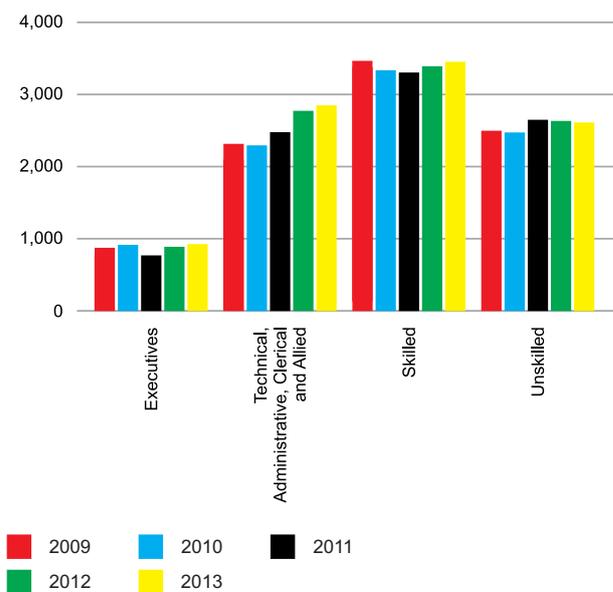
Staff	2012	2013	
Variation			(%)
(a) Permanent*	8,927	<b>9,222</b>	3.3
(b) Casual	51	<b>18</b>	(64.7)
(c) Contract	641	<b>658</b>	2.7
(d) Plant Technician Apprentice & GT	51	<b>55</b>	7.8
<b>Total</b>	9,670	<b>9,953</b>	2.9

\* Staff recruited for foreign funded projects are excluded from the permanent staff figure

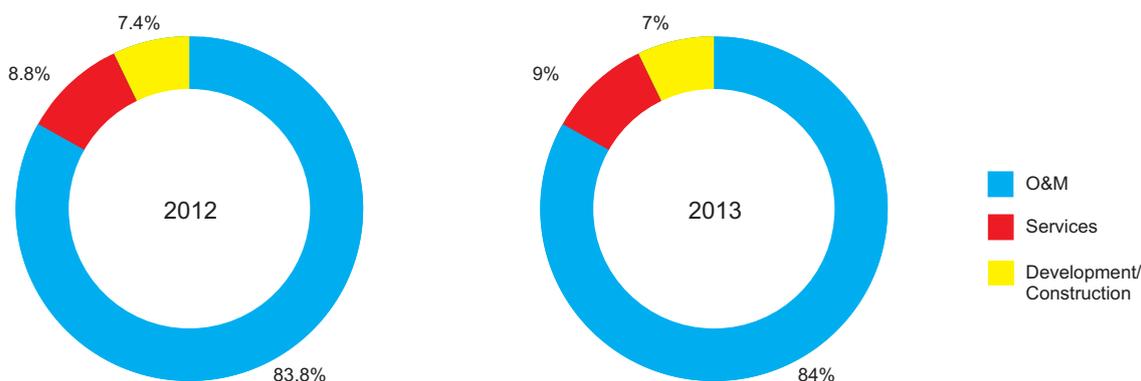
There were 658 contract, 18 casual, 52 plant technician apprentices and 3 Graduate Trainee (GT) in addition to a permanent staff of 9,222 at the end of 2013. Most of the contract employees were recruited to work for foreign funded projects.

There were 946 permanent, 17 casual, 479 contract, 26 plant technician and 3 Graduate Trainee apprentice recruitments of various staff categories during January to December in 2013. In the same period there were 651 permanent, 50 casual, 462 contract and 25 plant technician apprentice terminations which includes retirements, resignations, vacated posts and deaths in different categories of staff. This resulted in an increase of total staff by 283. The 52 plant technician apprentices are likely to be made permanent later.

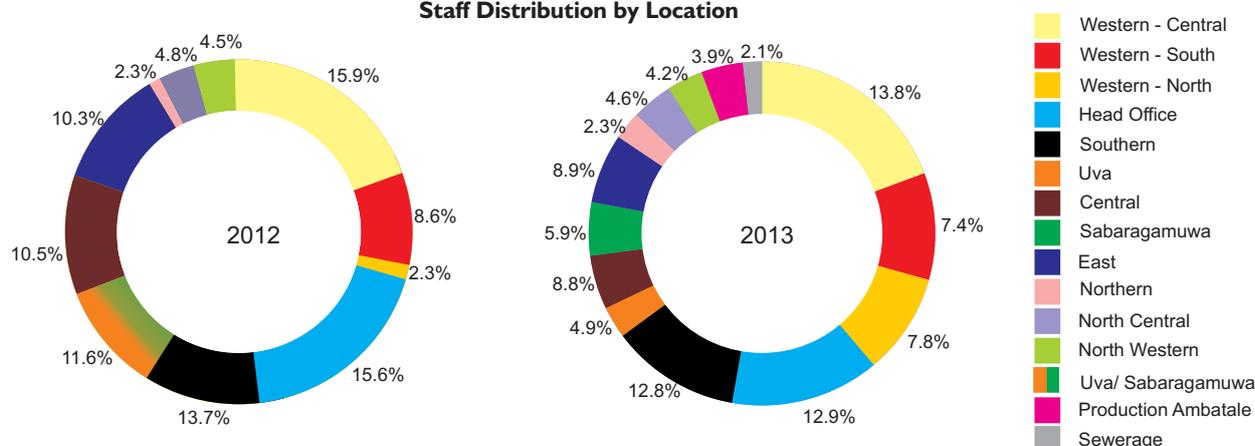
### Distribution by Key Job Function



### Staff Distribution by Key Job Functions



### Staff Distribution by Location



- An Annual Bonus of Rs. 23,000.00 inclusive of a productivity incentive was paid.
- Encashment of unutilized medical leave was continued as in the previous years.
- Rs.570,000.00 among 61 employees as vehicle loan, Rs. 7,670,160.00 among 13 employees as 12 month loan and Rs. 1,138,935,346.00 among 2,974 employees as 10 month loan have been distributed at a concessionary rate during the year 2013.
- 204 Employees were felicitated for rendering unblemished service to the NWSDB at the World Water Day Ceremony held in BMICH in March 2013.
- Rs. 45,362,310.27 (apporx.) was incurred for the reimbursement of medical expenses of employees (including family members). In addition, medical expenses incurred for critical illnesses.
- 618 casual/ contract employees made permanent in their posts during 2013.
- Transport facilities are made available to the staff at a concessionary rate.
- Death donation were granted in respect of the permanent employees who had died whilst in service.
- Local/ foreign training facilities were provided to the employees.
- Rs. 650.00 was granted as a tea allowance for the employees.
- Loan facilities via Government Banks were provided (Housing loan by the Peoples Bank and vehicle loan by the Bank of Ceylon).
- A Festival Advance of Rs. 5,000.00 was paid to the employees as in the previous year.
- The facility for the reimbursement of mobile telephone bills was extended to Board GR. VIII to Board Gr. V subject to a limit of Rs. 612.25.

### STAFF REMUNERATION AND BENEFITS

#### Comparison of Staff Remuneration in 2012 and 2013

Description	2012 Rs. million	2013 Rs. million
Salaries	6,123	<b>6,825</b>
Contribution to Employees' Provident Fund	651	<b>616</b>
Contribution to Employees' Trust Fund	163	<b>154</b>
<b>Total</b>	6,936	<b>7,595</b>

## MANPOWER DEVELOPMENT AND TRAINING

The workshop on "5S" concept were conducted for 583 employees covering all divisions of the head office staff.

### **Following training programmes have been introduced during 2013**

Effective Communication and Telephone Etiquette, Awareness Programme on 5S Concept, Delegation of Financial Authority, Recovery Procedures, IEE Wiring Regulations, Pneumatic Control Systems, Transmission System of Vehicles, Procurement Management, Pump Selection & Installation, Operation and Maintenance of Generators, Flow Meters, Level Meters Leak Detection Equipment & NRW Measuring

### **Formal In-house Training Programmes, Seminars and Workshops**

This division has conducted 177 In-house Training Programmes during the year 2013 and trained 7225 employees of various categories. The following table indicates the number of employees trained in each category.

No.	Category of Staff	Number of Employees Trained
1.	Managerial	450
2.	Executive	2,117
3.	Supervisory	936
4.	Clerical & Allied	2,244
5.	Operational	1,478
<b>Total</b>		<b>7,225</b>

*Programmes related to following subject areas were conducted during this period;*

Water Quality Monitoring, Water and Waste Water Treatment, Preparation of Contract Documents and Contract payments, Water Safety Plan, Occupational Health and Site Safety, Leak Detection and NRW Reduction, PLC Systems, Laying and Connection of PE Pipes, Administrative procedures, Financial Procedures, Material Management, Tender Evaluation, Procurement Management, IEE Wiring Regulations, Commercial Activities, Work Ethics, Written Communication, Computer Applications, Familiarization programmes for New Recruits, Refresher programmes, Traffic Law and Signs/ Vehicle Service and Documentation, Handling Machinery and Equipment in WSS, Hydrology and Ground Water Improvement, Effective Communication Skills, English & Tamil Languages, Productivity Improvement and Time Management

### **Training at other Training Institutions within the country**

MD&T Division arranged training for 245 employees externally through local training Institutions. This includes Masters and Postgraduate programmes conducted by local Universities and Diploma and Certificate courses conducted by various recognized Institutions such as National Institute of Business Management, National School of Business Management, Sri Lanka Institute of Development Administration, Center for Habitat Planning and Development, Advanced Construction Training Academy, etc. Further, employees were nominated for several short courses in the areas of Human Resources Management, Supplies Chain Management, Construction Management, Mechanical and Electrical fields and Machinery Operations, etc.

*Officers have been nominated for the following new training programmes during 2013*

Impact of Technologies on Business - Power Asia Pvt. Ltd., Effective Project Management – UNOPS, Improving Budgeting and Forecasting, Industrial Occupational Safety and Health – ACTA, Surveying and Leveling – ACTA, Water Proofing Technologies – ACTA, Management of Construction Projects – ACTA, Driving Research Towards Economic opportunities and Challenges – NAS, Issues and Solution in Ground Water Research Management, PG Diploma in Mass Media Studies – UOC, PG Diploma in Human Resources Management – NSBM, PG Diploma in Software Engineering – NSBM, World Construction Symposium – CIOB, Trenchless Technology – UOP, Preparation of Source Documents – NLDS, Salary Conversion – SLFI, Quality Management in Libraries – SLSI, Effective Premises Maintenance Systems - PSI Limited, Advanced Diploma in Company Administration and Secretarial Proficiency – NIBM, Technical, Social & Environmental Challenges in New Multipurpose Reservoir Projects - Irrigation Department

### **Overseas Training/ Official Visits**

I. Short term fellowships and visits - Overseas Trainings were provided for 80 employees of the Board with the financial assistance from ADB and other bi-lateral short term fellowships from NUFFIC, JICA, ITEC, KOIKA, AUSAID, and Singapore. In addition MD&T Division facilitated official visits for 107 officers in respect of Pre-shipment Inspection Visits, Factory Inspections, Contract negotiations, Twinning Programmes, etc.

II. Long term fellowships - During 2013, the following three long term fellowships have been received by the NWSDB Engineers for fulltime study abroad.

- M.Sc. in Sanitary Engineering Sponsored by Netherlands Fellowship Programme
- M.Sc. in Urban Water Engineering and Management

jointly conducted by AIT Bangkok, Thailand and IHE, Netherlands, sponsored by Netherlands Fellowship Programme.

- c. M.Sc. Programme in Environmental Science Specialization Environmental Technology for Sustainable Development jointly conducted by AIT Thailand and IHE, Netherlands sponsored by Joint Japan / World Bank Graduate Scholarship Programme.
- d. Furthermore, Ten half scholarships have been received from the IHE, Netherlands for Professional Postgraduate Diploma in Sanitary Engineering and Sanitation to Study Online basis. The Bill and Milinda Gates Foundation has given a grant to cover the 50% of the course fee based on the MOU signed between IHE and the NWSDB and for the NWSDB to bear the balance cost.

### On-the Job Training

On-the Job training was provided to Apprentices (Undergraduates, Special Apprentices, NDT/ HNDE Students, Craft Apprentices and students of Technical Colleges, Institute of Chartered Accountants, A.A.T. Vocational Training Authority, National Apprentices & Industrial Training Authority (NAITA), etc.

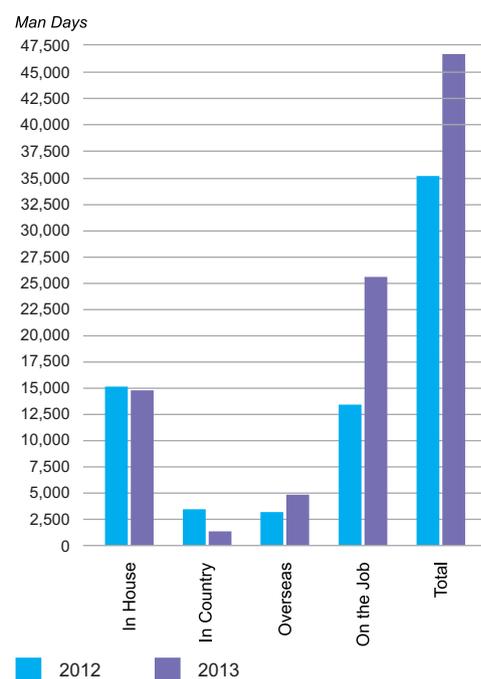
### Summary of on the Job Training Provided for Apprentices from External Institutions.

No.	Category	No. of Trainees	Man days
1	Undergraduates	39	25,769
2	Technical Trainees	79	
3	Accounting Trainees	06	
4	Clerical & Other Trainees	53	
<b>Total</b>		<b>177</b>	

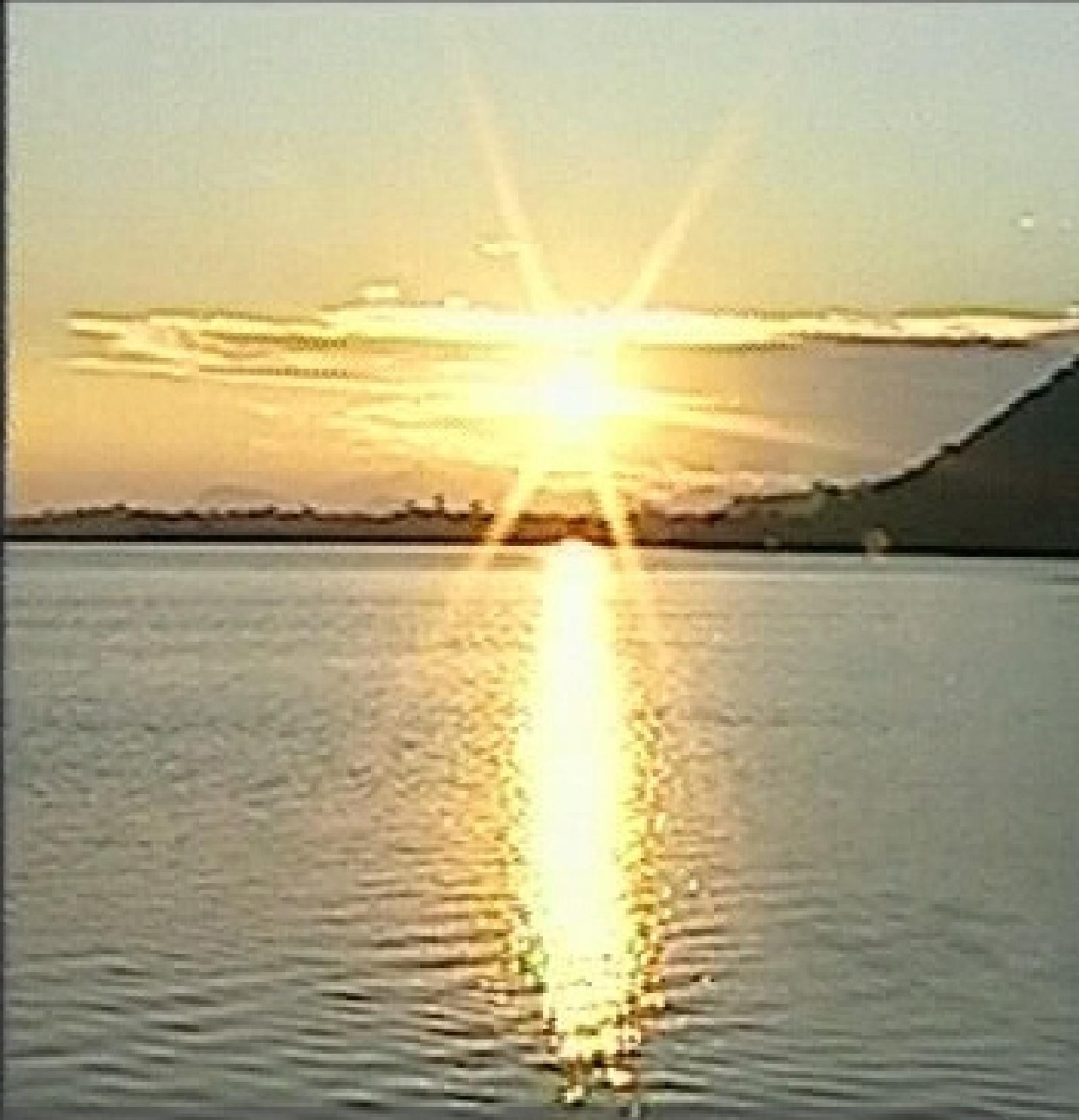
### Training Provided - Programme and Progress in numbers of trainees

No.	Type of Training	Programmed	Progress	Percentage	Mandays
1.	Formal In-house Training	2,700	7,225	267%	14,816
2.	Overseas Training and Visits	75	187	249%	4,886
3.	In country external Training	150	245	163%	1,390
4.	Workshop/ Presentation Conducted by External Institutions	300	437	145%	218
<b>Total</b>		<b>3,225</b>	<b>8,094</b>	<b>250%</b>	<b>21,310</b>

### Summary of Training Provided for Internal Staff.

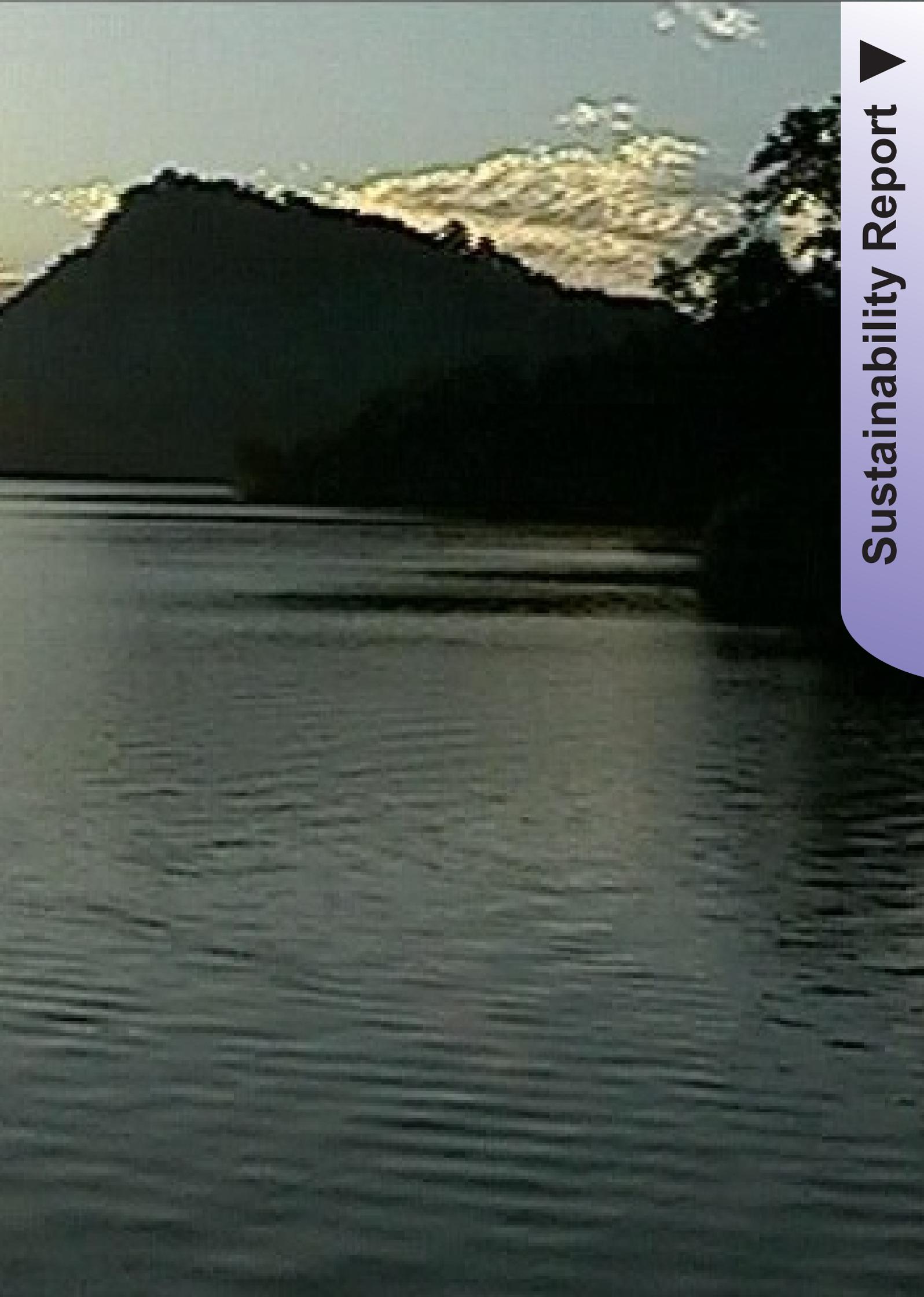


In addition to the above training programmes, the RSCs have conducted different training programmes based on their needs and those are not reflected in the above graph.



***“Water is critical for sustainable development, including environmental integrity and the alleviation of poverty and hunger, and is indispensable for human health and well-being.”***

***- United Nations***



# Sustainability Report ▼

## **Customer Convenience through Innovative Technologies**



“NWSDB has made remarkable attempts to adopt these emerging technologies to enhance the operational efficiency, service quality and customer care services ensuring better customer satisfaction”

Innovation is the key factor in improving public service. While Government concepts are emerging as the driving force in improved government service delivery mechanisms, the technologies such as Geographic Information Systems (GIS), SCADA systems, SMS and mobile based technologies are fast emerging as platforms for innovative solutions in the public utility sector worldwide. Keeping in phase with these new trends, throughout the year, NWSDB has made remarkable attempts to adopt these emerging technologies to enhance the operational efficiency, service quality and customer care services ensuring better customer satisfaction.

### **Enhancements to Call Center**

Call Center solution facilitating customers to lodge their complaints through customer care hotline 1939 and effective processing of these complaints through the fleet of field staff deployed islandwide, has become the centerpiece of the customer care services of the organization. This facility is gaining popularity continuously and more than 70,000 complaints have been accepted and processed during the year through the call center facility alone. One of the main features of the Call Center solution is the use of SMS and email as the primary communication methods to give immediate feedbacks to customers and inform the details of the complaints to field staff for their immediate attention. Also, this system facilitates the tracking of the progress of the complaint processing while serving as a good management information source for effective decision making on this subject.

During the year, the solution was improved adding various new features such a facilities for sending customer alerts and notifications through SMS, enhanced call queue management, online monitoring of call center operations etc. Regional staff utilize the solution to send alerts on water supply interruptions, disconnection notices directly to the customers' mobile phones through SMS messages.

### **Customer Charter**

NWSDB has enforced a customer charter which set guidelines on maximum time limits to deliver most important customer support services such as new connections, billing/payment issues etc. displaying its utmost commitment to ensure the best customer satisfaction. On the spot new connection cost estimation in certain regional offices, provision of the connections within 7 days on receipt of the payments, one day service connection provisioning options are some of the remarkable steps taken by the organization to ensure best customer satisfaction.

### **Official Web Site**

The official web site of the NWSDB was updated continuously to reflect the most current image of the organization. While providing most upto date information about the organization, certain interactive services have been incorporated to the site to enhance the customer interactions. Application forms, service request forms, leaflets, publications etc. are available for the users to download. Details about the important events, notices, news items are updated regularly.

The tender notices, job opportunities, procurement notices, etc. are some of the most popular sections of the site. Facilities are available to send the customer feedbacks and submit complaints/grievances.

Certain steps were taken to enhance the web site to convert it to a content management solution using open source web design and development methodologies, in order to facilitate more effective content updating process.

#### **Online Customer Care Portal**

NWSDB initiated the development of an online customer care portal facilitating customers to view the consumption patterns, bills, payment details, outstanding balances, etc. The customers with a valid water services account can register in this portal to receive a host of online services. While providing customers with various details of their water service account, the portal allows the customers to make payments online using credit cards and several other options. This is a self-service online portal which was designed in keeping with the latest industry practices. The system was designed with stringent security controls to safeguard the privacy and information security.

#### **Collaborative Services with other Institutions**

NWSDB consented the Information and Communication Technology Agency (ICTA) to incorporate certain selected services in to the LankaGate online one-stop government services platform. An online portlet was developed by the ICTA in collaboration with the NWSDB under the re-engineering government initiative. This facility offers citizens with water service accounts to view the details of consumptions, bills, payment details along with a facility for making online payments to the outstanding bills.

In fulfilling its social responsibility, NWSDB has helped Ministry of Public Management Reforms to establish a comprehensive grievance management system for all government institutions. NWSDB provided its expertise in advisory capacity and developed the IT Solution for this purpose. The system is expected to become the primary grievance management solution of the government.

#### **Host of Payment Options**

At present, NWSDB offers the customers various different options for making payments on their bills. In addition to online payment options offered through various web sites including NWSDB official web site, LankaGate portal and portals of many popular banks, the customer has the convenience of making payments through popular retail shopping centers operated by reputed supermarket chains such as Cargills, Keells,

Laughs etc. Such payment collection facilities are authorized to collect payments with a legal agreement with NWSDB.

NWSDB's own collection counters are available at all the regional offices and few dedicated collection counters opened at convenient and public locations such as People's Park etc.

Recently, the eZ Cash, m Cash systems have added the possibility of making payments through mobile payment systems operated by them. Considering the convenience to the customers, NWSDB has authorized them to collect payments on behalf of the NWSDB under legal agreements.

NWSDB has consented some private parties to establish convenient payment facilities such as Kiosks, Teller machines, on the spot payment collection systems using payment card methods.

#### **Public Awareness Programme**

Public Relations Unit conducted various education and awareness programmes targeting customer groups, school children and consumer societies. Major focus is given on water conservation, environment aspects, protection of water bodies etc. A newspaper named 'Jalaya' is published periodically to educate the target groups on many different aspects related to water service.

Various events were organized by the NWSDB under the guidance of the Ministry of Water Supply and Drainage and various other interested parties to raise awareness among the public. Some of such events are World Water Day ceremony, Community Water Conference, SACOSAN conferences.



*Workshop Conducted at the Holy Family Convent - Kalutara*

## Rural Water and Sanitation

### Upgraded RWS section

Up to first half of this year, Assistant General Manager (rural water and sanitation) headed the RWS section. The RWS section was upgraded to DGM level and Deputy General Manager (Rural water and sanitation) heads the RWS section and a new position of Assistant General Manager (Community Development) has been established in the RWS Section.

### Performance and Major Activities in Rural Sector

- Identification of drinking water and sanitation requirement of rural areas.
- Provision of water supply and sanitation facilities to rural areas where the facilities are not available.
- Ensuring the sustainability of existing rural water supply schemes liaising with external institutions / organizations.
- Provision of technical assistance for improvement of rural water supply schemes under the financial assistances of the National Community Water Trust
- Implementing water quality surveillance programs in collaboration with other relevant institutions.
- Preparation, execution and monitoring of Water Safety Plans for rural water schemes.
- Leadership roles were taken in national level events such as World water day, SACOSAN IV etc for sustainability of water and sanitation sector.
- Adaption of innovative and appropriate technologies to rural water and sanitation.
- Improving technical skills in the construction and maintenance of CBO managed water supply schemes
- Provision of necessary assistances by district RWS units, to carryout safe drinking water supply programs in CKD affected areas.
- Awareness for promotion of improved sanitation alternatives.
- Research and development of low cost operation and maintenance technologies.
- Identify and address real needs of the RWS sector.

### Establishment of Rural Water and Sanitation Units

NWSDB, as the National Agency for provision of water supply services to the country, has taken steps to establish decentralized institutional set up and supportive mechanisms to assist CBOs and to enhance water supply and sanitation services in the rural sector. Under this initiative, NWSDB has established district Rural Water & Sanitation (RWS) Units to provide required support towards ensuring sustainability of facilities managed by CBOs. Necessary arrangements for

the establishment of RWS units in Jaffna RWS units were taken.

At present 22 RWS Units are in operation in 22 districts as depicted in the map of Sri Lanka.

Email and Web-based system was introduced to distribute information among district staff to improve their knowledge. It is planned to supply required facilities for DRWSUs to improve their efficiency and enable working capacity.

### Location map of District RWS Units



### Field Visits for Knowledge Sharing

RWS section has taken steps to visit RWS District units (Kalutara, Ratnapura, Gampaha, Puttalam, Kurunegala, Matara, Kegalle), 3 Nos. CBOs and CBO forums for reorientation and clarification of RWS role. These District units will;

- Provide technical, community development and financial management support to CBOs.
- Support to conduct water quality surveillance program including support for preparation of Water Safety Plans to assure water quality of CBO managed water schemes.
- Encourage CBOs to organize themselves as CBO

Forums as umbrella organizations and to share their experience and knowledge.

- Motivate CBOs to liaise with Local Authorities, Divisional Secretaries, other local agencies, private sector and NGOs working in the area.
- Provide of technical assistances for improvement of rural water supply schemes under the financial assistances of the National Community Water Trust
- Strengthen RWSS sector services delivery mechanism
- Encourage diversified activity in CBO

#### **RWS Master Database**

With reference to the previously established online database, actions were taken to improve the data completeness and accuracy with assistance of district staff. Available data was collected and analyzed to identify any additional requirements of information. New data collection format was introduced to collect details on Rural Water Supply (RWS) schemes managed by Community-Based Organizations. The main objective of this stage is to track all the RWS schemes using GPS and ArcView technologies which will give easy environment for addressing technical issues in future. Low cost solutions such as Google Maps and Yahoo Maps were introduced to locate GPS Coordinates. Available information on RWS schemes in Colombo, Gampaha, Batticaloa, Ampara, Kurunegala, Puttalam and Kegalle districts were entered in to Master database.



*Awareness Programme for CBOs*

The NWSDB assisted in providing technical, financial and social development training to CBOs with a view to strengthen the human, institutional and technical capacity of those organizations. Most of such training programs have been designed and conducted through donor funded rural water supply & sanitation projects and others directly by District RWS Units. It is evident, that the capacities developed through training are being utilized by CBOs for successful maintenance of their water supply schemes. In this year, UNICEF assisted for the improvement of CBOs WSS in Badulla district , through NWSDB for strengthening technical, financial and social development training to CBOs. District level

CBO forums have been established and number of programme are initiated to strengthen the CBO forums.

#### **Water Quality Surveillance Programme for Community Based Water Supply Schemes**

Water quality surveillance programme for rural water supply schemes had been initiated in August 2009 by the NWSDB through District RWS units, with the support of Ministry of Healthcare & Nutrition. At the District level, Public Health Inspectors (PHIs) collect water samples and deliver to respective laboratories of the NWSDB. Cost for testing water samples is borne by O&M budget of the NWSDB. Also district level water quality surveillance committees were established and District Secretary of the respective district chairs the committee meeting. Test reports of water samples in water supply schemes are reviewed at these meetings and necessary instructions are given to rectify the water quality issues. Number of awareness programs were conducted to aware staff of CBOs for the preparation of water safety plans and identification of the present issues of CBO managed water supply schemes. These programmes were conducted in Provincial as well as District level where as necessary in the region.

#### **International conference on Community & Water Services in Sri Lanka from August 16-18.**

International Conference on Community & Water Services was held in the North Central Provincial town of Anuradhapura in Sri Lanka from 16 to 18 August.

The conference was titled “Water Cooperation for Community Development” was organized by the Ministry of Water Supply & Drainage under the chairmanship of Honourable Minister of Water Supply and Drainage Dinesh Gunawardena.

The National Community Water Trust, National Water Supply & Drainage Board and Lanka Rain Water Harvesting Forum were the co-organizers.

The three-day Conference, convened to mark this year's UN declared theme 'International Year of Water Cooperation, aiming to provide a platform for sharing knowledge, strategies and best practices and to promote dialogue, mutual understanding and co-operation among communities managing their water.

Among the themes addressed are the innovative approaches for water cooperation, cooperation for poverty alleviation and universal water access, water cooperation to preserve ground water resources and protect the environment, reaching sustainable development through water cooperation, cooperation to reduce effect of climate change and other water related disasters, cooperation to reduce health related challenges to community such as chronic kidney disease and the challenges for capacity development in rural water and sanitation sector.

Over 3,500 community based organizations that were formed to implement the projects are now empowered to manage, operate and maintain these systems with the support of the National Community Water Trust (NCWT) and the National Water Supply and Drainage Board.

Delegates from India, Bangladesh, Pakistan, Nepal, Bhutan, Afghanistan and Maldives participated.

#### **Improvement of CBO managed water supply schemes under the financial assistances of National Community Water Trust .**

During the year 2013, funds were received from NCWT for replacing of pumps and installation of low cost chlorinators for CBO managed water supply schemes and Following works were carried out during the year.

- Rs 6.2 million was received for supply and installation of 312 number of low cost chlorinators for 312 CBOs in the entire country.
- Rs. 45.0 million was received for replacing and installation of 127 new pumps for 97 CBO water supply schemes in Anuradapura, Polonnaruwa, Puttalam, Kurunegala, Matale, Kandy, Nuwaraeliya, Gampaha and Colombo districts.
- Pump replacement requirements of the other districts were identified and details were collected. Tender documents were ready for calling bids for purchasing pumps under the funds in the year 2014 of NCWT.

#### **AUSAID Funded North East WASH Project**

Australian International Development Agency (AUSAID) provided a grant of US \$ 2.01 Million to NWSDB through World Bank for the implementation of Pilot Water Supply and Sanitation (WASH) program in Post –Conflict settlements of Mannar and Trincomalee Districts. NWSDB was implementing the above project in coordination with the Local Authorities of respective areas. The duration of the project is 2 years. Under the project, drinking water supply for 3,000 households in the selected sub project areas were planned to provide through small scale community managed water supply systems and following subprojects were selected.

Mahadiulwewa, Namalwatha, Navastholai and Kiliveddy were the selected sub projects in Trincomalee district.

Thalaimannar village, Palampiddi, Mahakiramam, Koolankulam and Konadchchi were the selected sub projects in Mannar district.

90% of the construction works of water supply schemes of the above sub projects have been completed and it is planned to start the operational and maintenance works by CBOs within the first three months of the year 2014.

US\$ 2.01 million received from AUSAID as a grant and under the capital budget Rs. 80 million have been

allocated. Total expenditure recorded Rs 222 million as at 31.12.2013.

In addition to the above water supply facilities, 517 household latrine units were constructed with community contribution and community participation.

#### **UNICEF Funded Water Sanitation and Hygiene (WASH) Programme (UNICEF Lankan Funds)**

Under the UNICEF funded Water Sanitation and Hygiene Programme, activities such as implementation of awareness on improvement of water quality, improvement of existing rural water supply schemes and strengthening the backup support for district level rural water supply units were handled.

Construction of rain water tanks and new hand pump tube wells as well as rehabilitation of existing hand pump tubewells and dug well were conducted in Vavuniya and Mulathivu districts.

Rs 10 million worth of works have been completed under UNICEF funds during the year 2013.

#### **Under the above program, following activities were carried out in Uva and Central provinces.**

- Rehabilitation of 18 existing rural water supply schemes in Badulla District
- Rehabilitation of 68 hand pump fitted tube wells and drilling & fixing of hand pumps for 03 new tube wells in Badulla district.
- Strengthening of Laboratory facilities in the NWSDB Bandarawella laboratory to enhance the water quality surveillance programmes in Badulla district
- Conducting training and awareness programmes for CBO staff
- Implementation of water quality surveillance programme in Pussallawa area in Kandy District
- Support for national event such as international community conference held on August 2013 in Anuradapura and financial assistances for the participation to SACOSAN-IV conference.
- Rehabilitation of three water supply schemes in Jaffna district.

## SACOSAN IV programme



Second International Conference on Community & Water Services

One of the main objectives of the SACOSAN - IV is to achieve total sanitation by providing toilets. With reference to this theme, it was proposed to improve the sanitation facilities of the neediest 375 households and 07 schools from selected PS area in Hambantota, Colombo, Gampaha and Puttalam Districts where the sanitation facilities are not up to the standards to achieve the required sanitation needs.

In view of achieving the above goal, GOSL has allocated Rs. 8.36 million to the Ministry of Water Supply & Drainage.



Latrine construction in Hambantota district

## Ground Water

During the year 2013 the works related to Ground Water activities were Hydrogeological and Geophysical investigations, Drilling of tube wells, Flushing and development of wells, Repairs and Rehabilitations of hand pump tube wells, installation of new hand pumps and iron removal plants, Pumping tests, flow measurements of surface water, Augering, Jetting, Dug well cleaning, bed rock profiling and light drilling.

The progress of the activities was the completion of number of activities in each category of the above activities. 555 Hydrogeological and Geophysical investigations, 327 tube wells (deep and shallow), 431 flushing and well development activities, 455 Hand pump tube well repairs and rehabilitations, 153 new hand

pump installations, 150 pumping tests, 18 surface water flow measurements, 6 Jetting activities, 14 dug well cleanings and 2 light drilling activities were carried out during the year 2013.

Target for the tube well drilling activities was not achieved during the year due to frequent breakdowns of old drilling equipments, Poor sharing of machineries, Shortage of drillers and adverse weather conditions. New working schedule with flexible working days for tube well drilling crews was introduced.

## Sociological Activities

The main reasons for the community participation in water supply and sanitation projects are as follows:

- To ensure all demands of the beneficiaries in relation to water and sanitation needs are met through the project
- To develop consensus for design, coverage, financial commitment and quality services and to ensure basic right of access to the facility
- To contribute towards satisfactory performance of the facility that would ensure sustainability of operations

- Facilitating to implement Water Safety Plan (WSP) activities coordinating with Manager (O&M) and RWS unit and provide support services.

### Monitoring of Community Managed Water and Sanitation System (Eastern, Southern, Northern RSCs)

- Conducted trainings on Operations and Maintenance of CBO Managed Schemes and capacities of the CBO by establishing mechanism at regional level with the assistance of regional sociologists.

- Preparation of policy documents on user participation, participatory development and community management through revised P manual.
- Mobilizing and strengthening the community participation in project implementation phase through projects sociologist.

#### **Project Appraisal in order to reflect Community Needs and Expectations**

- Developed strategies to involve users in the planning process in the urban water Supply systems and implement pilot level programmes. Socio economic impact studies have been conducted with the help of university of Colombo.

#### **Social Impact studies and benefit monitoring studies**

- Studied and analysed the social perspectives in reduction of UFW/ NRW and developing appropriate mechanisms for the reduction programmes in consultation with other relevant officers. Brief report on above has been completed based on central, Galle area.
- School Children awareness programs on Water

Supply and Environment preservation has been incorporated into circular through NIE (National Institute of Education).

#### **Capacity building and training**

- Several awareness programmes were held for sociologists in head office. Training on Planning of rural Water Supply and sanitation was held by RWS staff for Local Authority officials in order to make them aware on the process.

#### **Water Supply for CKDu areas**

- Conducted awareness programme and community mobilization process to the CKDu Areas in North Central, Eastern, Uva and Northern RSCs

#### **Special Projects Wastewater Disposal Systems for Ratmalana/ Moratuwa and Ja-Ela/ Ekala Areas**

- Conducted awareness programmes on Wastewater Disposal Systems for selected CBO leaders in Badovita in Colombo District.

## **Non Revenue Water Reduction**

The NRW section function in the area of DGM (W-C) focusing on reducing losses occurring from unbilled authorized consumption and unauthorized consumption of water. Unbilled authorized consumption had been existence for over many years. From 2014 onwards there will be no unbilled authorized consumptions in under served settlements. All the free water common outlets had been metered.

Unauthorized consumption of water had reduced significantly from 5% to 3% and suggestions had been given for media campaign using the NWSDB resources.

Area wise NRW monitoring was initiated NRW calculations are done once in six months. Emphasis on active leakage control is continued to be made under night surveys and nearly 300 visible leaks have been identified in the week hours of the day. The NRW for Colombo city has dropped from 53% to 47.71%.

Water Loss Management Section is a sub section of DGM (WC) and its main focus is to reduce loss of water taking place through free water outlets, reduce unauthorized consumption of water and to formulate policies for reduction of NRW.

#### **Underserved Settlement Water Supply**

Disconnection of common outlets and provision of individual connections to underserved on concessionary terms is called Randiya Programme. There are 1,571 underserved settlements in Colombo City; latest plan by the Government is to relocate them outside Colombo City. The benefits of having individual connections

improve hygienic condition and improve quality of life.

Most of the occupants in these settlements are daily wage earners, to make it convenient for them to process the application and make the required payments, mobile offices were mobilized.

During this year, 948 connections were provided after disconnection of 110 common outlets. Over 1,800 m pipes were laid with the assistance of the people. Nearly 23,439 families have been benefited from this programme.

#### **Customer Society (Reduction of Unbilled Authorised Consumption – Free Water)**

Free Water was one of the major components of the NRW which had been in existence since water supply provided to Colombo City. In 1980 the water supply was metered, but the Water Supply to underserved settlement was through common water outlets which were unbilled authorized consumption. Provision of concessionary individual connections through disconnection of stand posts was initiated in 1990. Nominal charge was introduced for the water usage. Table below shows the measurement of consumption and nominal income generation.

Already 1,717 societies have been formed and 1,578 customer societies have received their monthly bill. Their consumption was 166,100 cu.m/month representing 5% of the water consumed by Colombo city.

### Formation of Societies and Consumption

	Dec.-11	Dec.-12	Dec.-13
Societies Billed	43	749	1,578
Billed Consumption (cu.m)	6,597	91,844	166,103
Revenue (Rs.)	21,891	312,732	576,609

### Reduction of Unauthorized Consumption

Identification of unauthorized consumption was carried out by five Gangs. Various methods are adopted to locate the unauthorized consumers. Some of the methods adopted are responding to information received from the general public, programmed search in the area for unauthorized consumption in commercial premises and checking all premises in the identified area in a planned manner with intention to cover the whole Colombo city.

During this year alone 1,661 detections have been made and Rs. 69.64 million has been levied. It is essential to note 21 detections of payment over Rs. 100,000.00 were made which brought in Rs. 36 million. Table below shows the changing pattern.

### Unauthorized Consumption Detection

	2010	2011	2012	2013
Presimses Checked (Nr.)	15,057	21,994	13,619	13,343
Detection Made (Nr.)	1,669	1,477	1,666	1,661
Amount Levied (Rs. m)	55.07	56.23	43.23	69.64

### NRW Management

In Colombo City certain portions in Fort area, CI pipes were not replaced. The area inflow measurements were measured after establishment of closed boundary. Night surveys were carried out to identify visible leaks. The NRW reduced to 15%.

Medawelikada District Meter Area (DMA) was established. The initial minimum night flow was 2 l/s. House to house survey for 260 premises was carried out. There were eight service leaks and five main leaks.

### Identification of Leaks

#### 1. Private Premises

The expertise to locate leaks in a distribution system is available. The service to customers and outsiders are provided at a fee. The customers make their request to relevant area engineer for the required service and make the necessary payments. One senior EA gang is assigned for this job, there are instance two to three gangs are deployed a day to keep up with requirement. During this year 714 premises have been checked. Table shows the changing trend.

### Internal Leak Detection

	2010	2011	2012	2013
Leak Detections Attended (Nr.)	503	605	628	714
Request from Non Customers (Nr.)	4	4	6	8
Confirmed Internal Leak (Nr.)	364	538	458	542

### 2. Distribution System

Whenever there is a visible leak or suspected leak, the assistance is provided. Location of leaks has to be identified during night time when there is no external disturbance from moving vehicles. This year totally 50 Leaks were identified and out of these, 21 identifications were done for outside regions. Table shows the historical pattern.

#### Leak Detection work carried out on request

	2010	2011	2012	2013
Leak Detection (Western Central) (Nr.)	40	76	60	50
Outside Regions (Nr.)	35	32	43	21

Identification of leaks during high pressure in the distribution system during mid night was carried out in 1sq.km of identified area. The outcome was 118 detection of leaks and all have been repaired.

Measurement of flow and pressure using portable instruments is routine and also done on request. The measurement has to be taken for a period of minimum 24 hrs. Adequate protection need to be provided, otherwise security arrangement has to be made by keeping a vehicle stand by. During 2013, 243 measurements have been taken. Out of these, 215 measurements have been taken on request. The variation trend is shown in table.

#### Flow Measurements

	2010	2011	2012	2013
Flow Measurement (Nr.)	176	157	188	243
Routine Measurements (Nr.)	69	23	29	28
Flow Measurement on Request (Nr.)	364	134	159	215

### Location of Underground Information

Importance of a valve is knowing its location when it has to be operated for some purpose such as stopping water flow to attend a repair, control the flow in distribution system, isolate an area etc. The necessity to operate a valve occurs rarely. The valves get covered when road improvement are made by other agencies. In 2013 nearly 53 valves were located of which, 24 Buried Valves in Western Central area and 29 on request by the other regions. Emphasis is made to GIS and mapping of valves for future reference.

When pipes are being laid along the road, there are many utilities. It is necessary to identify the utilities and

distinguish the existing water mains well in advance. The detection equipment could be used by well trained dedicated staff. It is a very slow and time consuming process. During the year 1,550 m of pipe tracing was done. Out of this, 500 m was done outside western central area.

#### **Night Leaks Survey, a different approach**

A novel programme was initiated to identify the visible leaks. The system pressure builds up till 4.00 am and with the pressure build up the leakage increase and surface. Non conventional approach was initiated by looking for visible leaks by driving vehicle between 3.00 am to 6.00 am. This approach identified 294 leaks in one day in the month of October. The teams covered a distance of nearly 300 km. To identify the locations, circle was sprayed on the road and necessary reference was documented. The leaks were repaired by the operations.

#### **Flow measurements within area engineer boundaries**

In each Area Engineer boundary, provisions were made to measure the quantum of water supplied. In 55 locations, provisions had been made and 43 chambers have to be placed in busy roads of Colombo city. Permission to work was given only in nights after 10 p.m. and has to be completed before 5 O' clock in the morning. In the absence of Backhoe, Boom truck, lorry in the section, advance planning ensured each equipment is available from various sections when work is progressing. Only one chamber could be placed each week under various constraints. The flow to each area was measured and the water balance was prepared based on the International Water Association (IWA) guidance.

#### **Implementation of Foreign Funded Projects**

##### **1. Replacement of Deteriorated Pipe in Kotahena**

Under the capacity development project for NRW reduction in Colombo city one of the subzone pipes were identified for replacement. Funds were allocated under Greater Colombo Water Rehabilitation project. Necessary drawings and Bill of Quantities were prepared for award of contract. The contractor has laid 1600 m of pipe and completed the pipe laying work. 375 nos of service connections were transferred.

This section discontinued the CI line from the system

after laying 255m of 63mm dia pipe in 22 underserved settlements where 115 connections were transferred to the new common line.

The NRW was 78.5% this was brought down to 70% after House to House survey and elimination of unauthorized consumption and service leaks. After replacement of pipes the current NRW stands at 9.8%.

##### **2. Colombo Water Supply Service Improvement Project (ADB PPTA)**

Many data were shared to the project and active participation were made for better formulation of project for long term sustainability for the investment on waterloss reduction. Regular flow meter readings were taken jointly.

#### **Knowledge Sharing**

A programme was initiated at the training centre at Telewala to train Engineers and Engineering Assistants on the use of leak detection equipment and flow measuring equipment. The effect of undetected leak leads to roots of tree finding its way into the pipes as shown in the figure below.



*Effects of an undetected leak - roots grown inside a pipe*

#### **Achievements**

- Establishment of Area Engineers NRW % for continuous monitoring
- Elimination of Unbilled Authorized Consumption in Underserved Settlements
- Additional income generation of over Rs. 7 million per year from converting free common water to income generation.
- Publishing of Manager's Manual for Non Revenue Water

## **Energy Management**

NWS&DB annually Spent Rs. 3.3 Billion for its electricity mainly for Water Treatment & Pumping Processes and NWS&DB is the largest customer for Ceylon Electricity Board. This figure is 22.7% of the total Operational & Maintenance Expenses of NWS&DB.

The energy management programme of the NWSDB achieved substantial progress and activities upgraded to a

higher level qualitatively and quantitatively for last couple of years. M&E Services Division is fully equipped with energy measuring equipments to carry out all types of energy audits for energy management works at NWSDB.

The Savings due to the tariff category rectifications, mechanical and electrical capital works and other energy saving projects, which were completed in previous years,

were continued during the 2013 and it caused a higher accumulated energy & cost savings. It is recorded that the continuing annual savings due to energy conservation projects implemented from 2004 to 2013 is Rs.228.0 million after deleting the implemented projects older than 5 years.

Energy audits carried out for 32 water supply schemes in 2013 will be encountered estimated annual energy saving of Rs.41.45 million for its energy audit recommendations for a estimated investment of Rs.123.7 million.

It is a great achievement by the Energy Conservation Programme at NWS&DB, that an amount of Rs. 140.0 million has been allocated as a special budget for the energy conservation activities in year 2013.

Seventeen (17) energy efficiency improvement projects have been completed during the year 2013 with a total investment of Rs. 59.4 million causing Rs. 20.93 million annual savings. This includes both energy efficiency

initiatives of M&E Services Division & M&E section at Regions.

Another 11 projects are at implementation stage worth of Rs. 84.5 million which will be resulting in annual saving of Rs. 24.84 million further to the above annual savings from completed projects. These 11 projects are expected to complete by 1st quarter of year 2014.

Kethhena/ Beruwala pump replacement project with estimated investment of Rs. 92.0 million (Rs. 38.0 million from the energy conservation funds) resulting in Rs. 8.9 million annual energy saving is at tendering stage.

Based on the energy audits carried out during the year 2013, 27 Nos. of new energy conservation projects have been formulated to initiate in year 2014. NWSDB allocated another Rs. 105 million for the energy conservation projects in 2014.

## Stores Management

Stores Management is an important area in the overall operation of the NWSDB activities. The efficiency of the O&M functions will largely depend upon the availability of Materials in the right quantity at the right time and right place.

Considering the high value of stocks available in our stores, the stores management activities have been closely monitored and co-ordinated by Head Office and respective RSCS. During the year 2013, we were able to reduce a considerable amount of unproductive stocks available in most of the stores by the way of annual disposal procedure.

Computerized Inventory Management System (IMS) implemented at the main stores under Enterprise –Wide IT Solution for the NWSDB has been extended to all the Regional Stores during the year 2013. This has helped us to view the stocks available in the Regional stores to other stores. We can access stock related information to all potential users as well as minimize procurement of stocks already available elsewhere. This has helped us to move the stocks to the required locations and to provide up to date Management Information on moving & non moving stocks.

Provision has been made under RH budget for the Improvement of stores and its environment. Some of Regional stores have been improved and provided necessary infrastructure facilities for safe keeping of stores items. Boundary wall at the salvage yard has been completed in the year 2013. Tender for Construction of Boundary wall and fence at the main stores has been awarded.

System Manual & Procedure for Stores Management Process has been published in the year 2013. This manual has helped to streamline all the Stores Management activities. Necessary Training has been provided to all the Regional Staff for the proper implementation of the manual and is being practiced by the relevant staff.

The concept of “safe keeping” of stores items has been practiced in most of the stores. 5S concept has been introduced in the stores to keep the stores environment clean and orderly manner. Action has been taken to increase the “Stock Turn Over” in all the stores locations.

## Research and Development

### **Pilot Study on Elevated Ground Reservoir Water Level Monitoring System and Remote Accessing of Online Water Level Data at a Particular Reservoir Through Mobile Phone**

At present Reservoir and Tower water levels are monitored manually leading to low accuracy and human errors. Also there are no warning alarms associated with the present system.

A new system was developed with ability to show the data graphically, automatic overflow alarms and low level alarms and automatic pump shut off at low levels using ultrasonic sensors. The developed application module is capable of displaying the water levels at the pump house and at the OIC's office. Also a facility was developed to receive real time water level data through a mobile phone.

This technology was developed with the assistance of Arther C. Clarke Institute of modern Technologies.

### **Awareness Programme of Water Safety Plan Biennium 2012-2013**

Water safety plan is an eleven step approach to make water safe for drinking in a water supply system. Awareness programmes, specially for catchment protection is important to achieve success in implementing water safety plans. Such awareness programmes were completed with WHO funding covering Galle, Matara, Hambantota in Southern Region, Jaffna, Kilinochchi, Mullaithivu, Mannar and Madu in Northern Region and Kantale in Eastern region.

### **Fabrication of constant head device (Constant flow dosing equipment)**

For accurate chemical dosing during water treatment, maintaining constant flow rate is a very important aspect for optimizing the chemical usage and final water quality in a water treatment plant.

An apparatus with a closed vessel was successfully experimented with provision of air entry to balance the pressure inside the vessel to maintain constant chemical dosing rate.

### **Reverse Osmosis (RO) Treatment Plants as a solution to the Chronic Kidney Disease of unknown etiology (CKDu)**

While there are many controversies over the cause of the CKDu among the professionals, NWSDB decided to assist the community by providing pure water for

drinking and cooking. It was identified that RO technology would be used to fulfill the need where the other acceptable options such as rain water and treated surface water could not practically implement to address the problem.

As RO is a new technology to Sri Lanka, NWSDB decided to implement few RO plants on pilot basis. Three such RO plants were installed in Thambalagollawa, Parakramapura and Bogahawewa with community participated operation. These plants are being closely monitored by NWSDB.

### **Package Water Treatment Plants**

The concept of unit operations treatment modules with smaller foot print and shorter fabrication time was introduced in 2005 to Pugoda. In 2013 seventh of such water treatment plant series was completed for the Kilinochchi Town with a capacity of 500 cubic meters per day with fabrication inputs from the Central Workshop of NWSDB.



*Kilinochchi Water Supply Scheme*

## **Information Technology**

With due recognition of the fact that Information Technology is one of the most effective tools in improving operational efficiency, quality of services and productivity of the organization, NWSDB has taken various steps to enhance the IT Infrastructure and Solutions to suit the needs of the organization while keeping in phase with the latest trends in the industry.

While maintaining the existing IT Infrastructure in sound and healthy condition to ensure uninterrupted and reliable operation of critical business solutions in optimum performance level, continuous upgrading of the IT Infrastructure was one of the major tasks of the IT division during the year. Some of these activities included expansion of IP VPN to cover new and important locations such as stores, OIC offices, Treatment Plants etc. As a cost effective methodology for wide area connectivity, remote VPN facility was introduced to many new locations eg. Sewerage Offices, OIC offices etc. New servers added to enhance the capacity and

performance levels considering the increasing demands of IT solution usage. It has been planned to convert the existing Server Room infrastructure to a more modernized, sophisticated IT infrastructure based on virtualization concepts. Preliminary assessment of possibility of utilization of cloud computing for the organization in future was done.

IT division engaged in implementing software modules of the Enterprise-wide IT Solution at islandwide locations. The priority was given to the Implementation of Inventory Management System (IMS) to computerize the islandwide stores network, Human Resources Management System (HRM) to computerize the activities of the HRM division. Implementation works continued in other modules at lower priority level.

As a regular activity, IT division engaged in developing and implementing software solutions considering urgent needs of the organization such as document

management, water quality monitoring, online customer services, personnel file management, engineering drawing management etc. In addition, IT division involved actively in developing a sophisticated solution for handling public grievances for the use of public institutions in Sri Lanka. This solution was developed by IT Division of NWSDB for the requirements of the Ministry of Public Management Reforms in collaboration with Information and Communication Technology Agency of Sri Lanka. This system demonstrates the commitment of IT division for national level computerization efforts and implementation of e-Government concepts for improvement of government activities through effective usage of ICT.

During the year 2013, IT division enhanced the call center operations through an open source call management solution with facilities for Interactive Voice Response (IVR), call recording, call queue management, operation

monitoring etc. as a web based online solution. This system has significantly improved the call center operations based on toll-free 1939 hotline facility.

Having shown a remarkable progress in its activities in year 2013, IT Division has submitted several major ICT proposals to the senior management for further improvement of ICT Infrastructure and implement new solutions to enhance the ICT status of the organization. It is expected to improve the usage of Geographic Information Systems (GIS) for daily operations, use of a comprehensive decision support system for management decision making process, implementing an online centralized commercial billing system, implementing a project management and progress monitoring system etc. when appropriate funding is available.

## Policy Formulation

The following policies and guide lines have been developed with the help of other relevant divisions and stakeholders.

- Cabinet paper on Water Quality Surveillance has been prepared and obtained the approval.
- Guide line on Water Quality surveillance has been prepared and the relevant offices have been trained.
- A special committee has been appointed under Addl. GM (S/ E) on Water Quality Surveillance and Water Safety Plans.

Training programme has been arranged to train trainers of training (TOT) on implementation of Water Safety Plans from selected officers from RSCs with the support of WHO.

Few Water Safety Plan awareness programmes were conducted throughout the island. As per the instruction given by the GM, work related to disaster management and climate change were undertaken by the same committee.

## CKD Programme

Subsequent to the several studies and research carried out on chronic kidney disease of unknown etiology (CKD), it has been widely accepted that supply of good quality drinking water is one of the most important interventions for the disease mitigation. Accordingly, the National Water Supply and Drainage Board (NWSDB) developed a strategy and work plans to provide safe drinking water to CKDu affected areas. This includes short term, medium term and long term plans. These work plans have been endorsed by the Parliamentary Sub Committee on CKDu.

The program covers the CKDu affected areas in the districts of Anuradhapura, Polonnaruwa, Badulla, Moneragala, Ampara, Trincomalee, Kurunegala, Uva and Matale.

The main strategy adopted is to establish small reverse osmosis (RO) treatment plants to purify groundwater from wells or boreholes and supply the communities using water bowsers. These small treatment units will be operated by the respective communities through the community based organizations (CBOs). Continuous technical support of NWSDB will be required during the operational phase.

In addition, bowser supplies are operated from existing water supply schemes to provide water to areas which are in close proximity. For certain other areas service extensions are provided from existing piped water supplies.

Rainwater harvesting is resorted to some areas. These are mainly sparsely populated areas where bowser supplies are uneconomical.



*“Water and sanitation problems have reached boiling  
Ravi Narayanan*

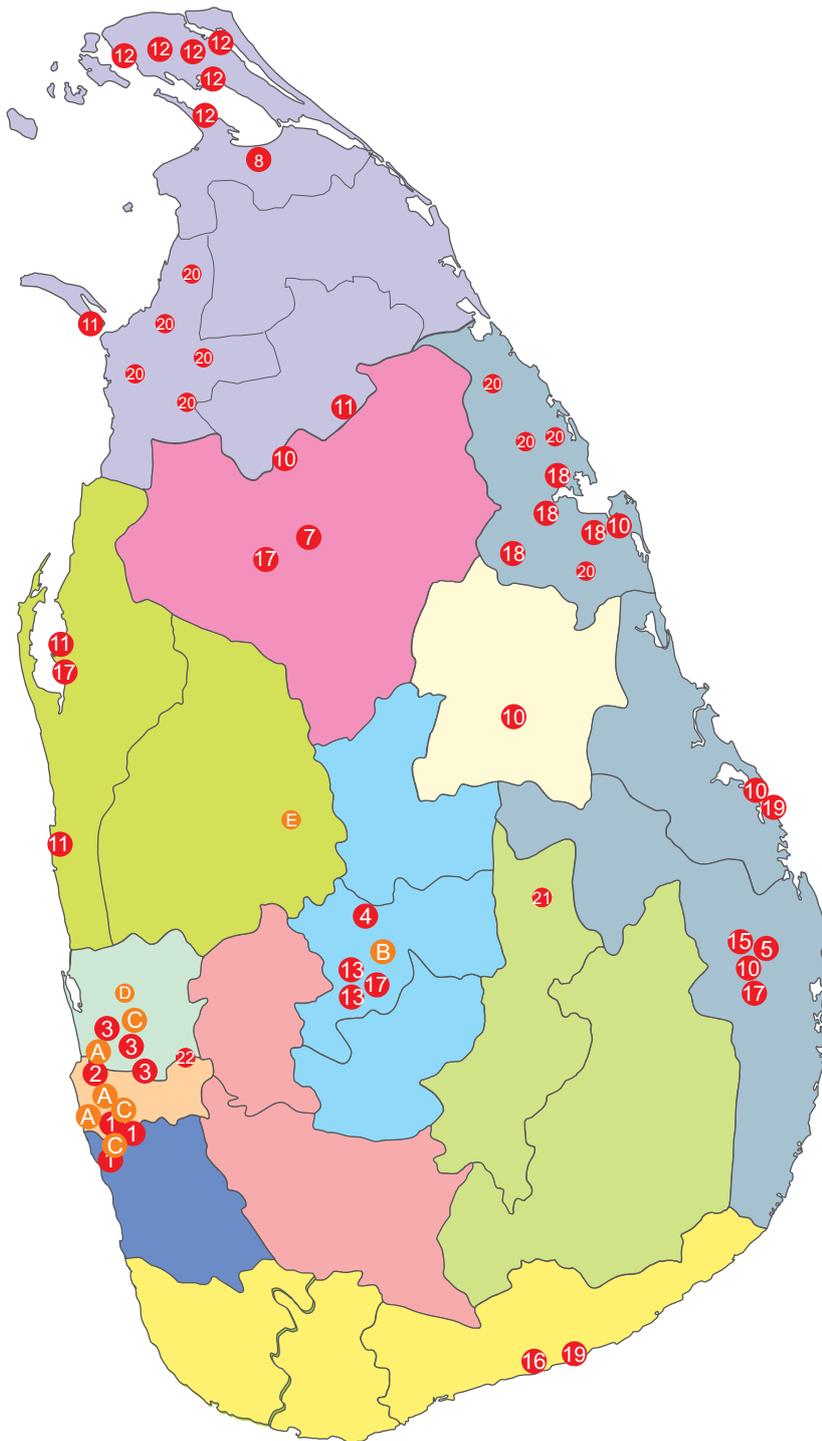


# Infrastructure Development

ng point.”

# Ongoing Projects

## Accomplishments of Major Water Supply and Sewerage Projects under the Ministry of Water Supply & Drainage Location Map of Foreign-funded Projects under Construction/ Augmentation during 2013



### Water Supply Projects

Project Name	Funding Agency
1 Kalu Ganga WSP - Phase I, Stage II	JICA
2 Greater Colombo Water Rehabilitation	JICA
3 Towns North of Colombo WSP - Stage II	JICA
4 Greater Kandy WSP - Phase I, Stage II	JICA
5 Eastern Province Water Supply Development	JICA
6 Consultancy Services for NRW Engineering Study, Master Plan Development & Institutional Development	JICA
7 Anuradhapura North WSP	JICA
8 Kilinochchi Rehabilitation WSP	JICA
9 Colombo WS Service Implementation	ADB
10 ADB 4 <sup>th</sup> WSP & Sanitation Project	ADB
11 ADB 5 <sup>th</sup> WS Project	ADB
12 Jaffna - Kilinochchi WS & Sanitation Project	ADB
13 Towns South of Kandy WSP	DANIDA
14 Greater Dambulla WSP - Stage I	India
15 Integrated WSP for the Unserved Areas of Ampara District - Phase III	Australia
16 Ruhunupura Water Supply Project	Korea
17 Water Sanitation and Hygiene (WASH) Programme	UNICEF
18 Greater Trincomalee Integrated WSP	French
19 Design and Construction a new WSP for Kolonna & Augmentation of Balangoda WSP	Belgium
20 NEPWASH Project	AUSAID
21 Mahiyanganaya	Austria
22 Labugama Kalatuwawa	Hungary

### Sewerage Projects

Project Name	Funding Agency
A Greater Colombo Wastewater Rehabilitation	ADB
B Kandy City Wastewater Management	JICA
C Wastewater Disposal for Ratmalana/ Moratuwa & Ja-Ela/ Ekala Areas	SIDA
D GPOBA Increasing household access to Sewerage Services	WB
E Greater Kurunegala Water Supply and Sewerage Project	China

## FOREIGN FUNDED WATER SUPPLY PROJECTS

### Projects undertaken with JICA assistance

#### 1. *Kalu Ganga Water Supply Project Phase I Stage II and Non-Revenue Water Reduction in Greater Colombo area*

The Kalu Ganga water supply project phase I stage I was completed in 2008. The detailed designs of phase I stage II were commenced in 2008 and completed in 2009.

The objective of this project is to meet the increasing demand for drinking water in the Southern part of Greater Colombo. 300,000 people living in Kesbewa, Piliyandala, Jamburaliya, Kumbuke and Surrounding areas will be the beneficiaries. The total cost estimate of this project is Rs.10,846 million. The project components are water treatment plant at Kandana of capacity 60,000 cu.m/day, 1000/800 mm diameter 15 km long DI pumping main, 450/400 mm diameter 7 km long secondary mains, 03 Nos. of water towers at Kesbewa (1,500 cu.m), Jamburaliya (1000 cu.m), and Kumbuka (1000 cu.m) and Non Revenue Water reduction in Colombo city by the rehabilitation of distribution pipe lines in Pettah, Hulftsdorf and parts of Kotahena and Maradana and Slave Island in Colombo.

Construction of Kandana water treatment plant is in progress. Pipe laying in Bandaragama – Piliyandala, Kesbewa East/ West, Jamburaliya, Piliyandala – Miriswatta and Southern part of Colombo are also in progress under different contractors.

Supply and delivery of pipes were almost completed. Rehabilitation and improvement of distribution system in slave island area is under the procurement stage. The physical and financial progress of the project as at the end of 2013 are 83% and 65% respectively.



Exposed pipes at Gammanpila tank bund  
(Kesbewa - Bandaragama Road)

#### 2. *Greater Colombo Water Rehabilitation Project*

This rehabilitation project is intended to upgrade the service level of safe drinking water supply in Colombo area. This is one of the major projects planned with a view for achieving the Millennium Development Goals among many such capital projects. This project is a step

forward to the NWSDB's long term strategy for the Non Revenue Water Reduction Programme in Greater Colombo area. Total cost estimate is Rs. 4,785 million. It is planned to rehabilitate and enhance the water supply systems of CMC and Kotikawatta – Mulleriyawa area.

The project comprises of four packages. They are;

- i) Construction of a new office building at Maligakanda.
- ii) Supply and Laying of distribution network in Kotikawatta – Mulleriyawa area.
- iii) Major Civil, Electrical and Mechanical works and transmission main in Kotikawatta – Mulleriyawa area, Construction of Maligakanda reservoir, Elli House new reservoir and Gothatuwa Tower.
- iv) Water supply improvement to low income settlements providing 1,000 water connections for 8 – 10 tenement gardens in Colombo City.

Budgeted programme has been achieved and the work is progressing upto date expect at Maligakanda Reservoir site where certain issues and delays of CMC are encountered. Close monitoring of all project activities are being carried out with frequent meetings with project consultant and contractors to work. At the end of 2013, the project has achieved Physical and Financial progress of 83% and 85% respectively.

#### 3. *Towns North of Colombo Water Supply Project Stage II*



Ekala Reservoir

This project was designed to extend water supply services to the northern part of Greater Colombo. After the full implementation of the proposed project, transmission and distribution facilities will be provided for the Ja-Ela, Kandana, Ragama, Welisara, Ekala, Mahara, Ganemulla and Biyagama areas targeting to serve a population of 500,000. The Stage I of this project was completed in November 2006. The total cost estimate of Stage II of the project is Rs. 6,490 million.

Civil works under original scope were completed and handed over to O&M division to provide new connections. Additional resources and pipes also were supplied to O&M division for infilling lines. Supply and replacement of defective valves and installation of new valves in the project area, construction of Area

Engineer's office at Kelaniya, valve replacement and extension of distribution lines in Ja-Ela and Rathupaswela areas are some of the works in progress. Both the physical and financial progress of the project at the end of December 2013 was 99%.

#### **4. Greater Kandy Water Supply Project**

##### **Phase I Stage II**

Greater Kandy Water Supply Project is designed to provide safe drinking water to Kandy district and to minimize the non-revenue water percentage. The project will be completed in two stages. Stage I was completed in January 2007 which provides 36,670 Cu.m/day drinking water to 294,000 people in Kandy city. Main components of the stage I were raw water intake with a capacity of 110,000 cu.m/day, a pumping station with a capacity of 38,000 cu.m/day and 2 treatment plants at Kondadeniya and Katugastota.

Stage II is currently in progress to improve service level of 231,000 customers and to provide 30,000 new connections in Kandy Municipal Council (KMC) area, Ampitiya, Rajapihilla, Kulugammana, Nugawela, Heerassagala, Meekanuwa, Mullepihilla, Elhena, Gohagoda, Kondadeniya and Thelambugahawatta areas. Stage II is divided into eight independent packages including the consultancy package.

Construction of service reservoirs, construction of pump houses, supply and laying of transmission and distribution lines, construction of sedimentation and flocculation basin and design review works are in progress. Contract for construction of clear water reservoir was terminated due to the poor performance of the contractor.

While doing the work it was ensured that the temporally and permanent reinstatements of roads were done after pipe laying to minimize social and environmental impacts. These safety measures were discussed in the weekly progress meetings. The TCE for the stage II is Rs. 4,164 million. The physical and financial progresses were 93% and 135% respectively.

#### **5. Eastern Province Water Supply Development Project**

This project is to serve about 209,270 people in Ampara area. Mahawali River, Konduwattuwana and Rambukkana Oya reservoir are the water source. The total estimated cost is Rs. 6,526 million. Sub projects of the project in the priority order are Transmission main from Kondawattuwana to Kalmunai, Distribution system for Pothuvil and Water Supply schemes for Tsunami Housing schemes at Uhana, Damana and Hingurana.

The work packages are in progresses and on-schedule except supply & laying of Ampara-Kalmunai transmission main, where awarding is delayed due to appeals of the bidders. Further, two new work packages were proposed to be implemented with the concurrence of JICA by using the savings identified. Parts of Hingurana

and Uhana distribution systems were handed over to O&M and over 2,000 connections have been given already.

The cumulative Physical and Financial progress at the end of December 2013 were 86% and 50% respectively.

#### **6. Rehabilitation of Kilinochchi Water Supply Project**

Kilinochchi WSS was damaged during the armed conflict. Rehabilitation of the scheme was carried out with a total of Rs. 1,417 million. Damaged civil structures of the treatment plant and intake were rehabilitated with further foreign funding allocation of Rs. 20 million. Capacity of the treatment plant is 3,800 cu.m and target population served is 38,000 under this project.

The components of the project are M&E works of intake, aerator, slow sand filter and high lift pump house, 1000 cu.m and 450 cu.m capacity elevated towers at Kilinochchi and Paranthan, 98 km HDPE transmission main, 42 km distribution main, roughing filter and intake tower.

36 km distribution pipes and 4 km HDPE transmission lines were laid in the year 2013. The clearance from RDA/PRDA/LA were obtained. Two land areas for the water towers were allocated.

The target completion date of the project is July 2014 and the overall physical and financial progress of the project as at the end of 2013 was 28% and 18% respectively.

#### **7. Consultancy Services for NRW Engineering Study, Master Plan Update and Institutional Development**

The brief description of the project is providing recommendations and solutions for the water supply improvement in Western Province to meet demand up to 2040 under master plan update considering water resource study, water demand study, water balance study, transmission study, storage and distribution study and NRW engineering study in Colomb city and institutional development.

Major deliverables of this project are updated master plan up to 2040, GIS based hydraulic models (Water GEMS), staged development plans, feasibility reports for prioritized projects and final report of master plan update, NRW studies and institutional development.

The scheduled project completion date was 06th June 2013 and extension was given upto September 2013. The project was completed during the extension.

#### **8. Anuradhapura North Water Supply Project**

The people from Anuradhapura North area depend on unsafe ground water which risk them with dental and skeletal fluorosis and chronic kidney disease (CKDu). Therefore by constructing a water supply system in

Anuradhapura North area, safe drinking water can be provided to a population of about 280,000.

This project had been proposed to implement in two phases. Phase I will be Mahakandarawa WSS which will cover Medawachchiya and Rambewa DS divisions while Phase II will be Wahalkanda WSS which will cover Kebetigollawa, Padaviya, Horowpatana and Kahatagasdegiliya DS divisions. The project area had been expanded after several discussions cover to high demand of safe drinking water in the area.

The cabinet meeting held in October 2013 considered the cabinet memorandum dated 2013.10.10 by the Ministry of Water Supply & Drainage on Appointment of Consultants for Design, Construction, Supervision & Management Support for the Anuradhapura North WSP – Phase I and decided to direct the secretary to the Ministry of Water Supply and Drainage to explore the possibility of expanding the scope of the project and also the implementation of the project on fast track basis and to propose alternative arrangement to supply drinking water to the area urgently.

The appointments of project staff, supply and delivery of vehicles for the project, road crossing works along Mihinthale to Trincomalee road were started. There is a small delay in the project due to delay in appointment of the consultant.

#### **Projects undertaken with DANIDA assistance**

##### **1. Towns South of Kandy Water Supply Project**

Major work relating to the project is complete, except for the Iron removal plant being constructed at the Elpitiya WSS. 85% of the work has been completed. Installation of filters, construction of underground sump, placing of filter media and supply of DI pipes, pump and electrical layout and installation of pumps and air blowers are completed. Construction of backwash pump house is expected to be completed by the end of January 2014. Pressure filters and pumps testing and commissioning will be done in February 2014.

##### **2. Kelani Right Bank Water Treatment Plant**

This is a high priority water supply project which was launched with the objective of improving water supply situation in towns in the northern part of the Western Province, namely, Biyagama, Kiribathgoda, Kadawatha, Ragama, Wattala, Kandana, Ja-ela, Seeduwa and Ganemulla. It is intended to feed the distribution network laid under the Towns North of Colombo Project funded by JICA.

The project comprises a raw water intake with a capacity of 360,000 cu.m/day and a treatment plant with an initial capacity of 180,000 cu.m/day (40 MGD) to be constructed on the right bank of the Kelani River at Pattivala, Ambatale which benefits for about 1,000,000 people. The project commenced on 22nd October

2008. The total cost estimate of the project is Rs. 10,150 million.

The water treatment plant was commissioned on March 2012. Mainly the water is pumped to Church hill reservoir. A facility to pump the water to Ambatale is also available in the treatment plant. Continuous water quality monitoring system is established at the plant. Water with the specified quality is being produced. Construction of stage I of semi permanent salinity barrier at Ambatale was completed during 2013. It was able to provide a complete solution for salinity water problem in drought seasons. The physical and financial progresses of the project at the end of December 2013 were 100% and 99% respectively.



*Semi Permanent Salinity Barrier at Ambatale*

#### **Projects undertaken with Indian assistance**

##### **Greater Dambulla Water Supply Project - Stage I**

The Greater Dambulla WSP – Stage I was commenced in March 2012. The water source is Dambullu Oya Reservoir (Ibbankatuwa) and the project components are 65,000 cu.m/day capacity intake, 32,000 cu.m/day capacity fully automated treatment plant with 2,500 cu.m clear water tank, 6 Nos. of ground reservoirs and 3 Nos. of elevated towers of a total capacity of 7,650 cu.m, 74 km long DI transmission mains and 228 km long PVC distribution mains. The total cost estimate of the project is Rs. 13,000 million. The target date of completion is 05th September 2014 for the project. Totally 65 Grama Niladari Divisions will be covered by this project.

Construction of raw water intake and pumping station, construction of water treatment plant, construction of reservoir and associated pumping station including supply and laying of transmission network and laying of distribution network are in progress. Some training programmes were conducted to the project staff during the year 2013. GIS and applications, surge analysis and designing of water treatment system were some of the training programmes conducted. The overall physical progress and financial progress of the project at the end of December 2013 were 45% and 70% respectively.

## **Projects undertaken with Asian Development Bank assistance**

### **I. Secondary Towns and Rural Community-Based Water Supply and Sanitation Project (ADB Fourth Project)**

Overall goal of the project is to contribute to the poverty reduction efforts of the government of Sri Lanka and to promote the human development by improving access to safe water and sanitation for poor population, thereby decreasing water borne diseases and reducing the amount of resources spent in these activities. The project aims to provide safe water to 832,500 people and sanitation to 171,500 in four urban centers (Batticaloa, Hambantota, Muttur and Polonnaruwa) and in the central area of North Central Province and Eastern province and to increase the capacity of Government of Sri Lanka to provide safe water by strengthening the water sector institutions.

The project cost estimate was revised from USD 175.2 million to USD 263.26 million to meet the actual cost. ADB share of project cost is USD 149.1 million which provided through original loan and four other supplementary loans. The project completion will be on September 2014 according to the schedule. The project details and statuses at different places and components are briefed below.

#### **(I) Urban Water Supply and Sanitation Component**

##### **Hambantota District:**

In Hambantota District the project will provide a water treatment plant of 15,000 cu.m/day by constructing an intake of 120,000 cu.m/day to provide 15,000 cu.m/day of treated water to 133,000 people. The major elements will consist of 5 new water towers at Ekkassa, Bolana, Bellagaswewa, Mirijjawila and Keliyapura, clear water tanks of capacity 3,500 cu.m and 1,250 cu.m, salinity barrier across the Walawe river at Ambalantota and 158 km of distribution pipelines. There is a sanitation component to provide 1,098 household toilets in Hambantota district to 5,490 beneficiaries. Total estimated cost of the work in Hambantota district is Rs. 6,066 million.

All the works were completed in Hambantota district and the scheme is in operation now. Taking over of salinity barrier at Hambantota by the O&M was finished on October 2013.

##### **Batticaloa District:**

In Batticaloa District the project will provide a water treatment plant of capacity 40,000 cu.m/day by constructing an intake of capacity 100,000 cu.m/day to provide 40,000 cu.m/day of treated water to a design population of 246,000 people. The major elements will consist of 07 new water towers at Chenkalady, Eravur,

Iruthayapuram, Air Force premises, Kallady, Kattankudy and Arayampathy, Clear water tanks of capacity 7,000 cu.m and 2,500 cu.m, 55 km of transmission main and 275 km of distribution pipelines.

A sanitation component is also there to provide sewerage treatment plants of 460 cu.m/day capacity to the Prison and Hospital in the Batticaloa District. 1,387 Nos of Household toilets are a part of the sanitation components. The total estimated cost of the works in Batticaloa District is Rs. 12,398 million.

The project in Batticaloa District was already completed and the scheme is in operation now. The storm water drainage systems is also completed.

##### **Polonnaruwa District:**

In Polonnaruwa District the project will provide a water treatment plant of capacity 13,500 cu.m/day by constructing an intake of capacity 40,000 cu.m/day to provide treated water to a design population of 85,000 people. The major elements will consist of 3 new water towers at Gallalle, Bandiwewa and Sewagama clear water tank, with the capacity of 1,700 cu.m, 33 km of transmission pipeline and 139 km of distribution pipeline. Under the sanitation component construction of 393 Household latrines are there for 1,965 beneficiaries.

The total estimated cost of the work in Polonnaruwa District is Rs. 5,455 million. All the works were completed and the scheme is in operation now.

##### **Trincomalee District (Muttur WSS):**

A water treatment plant with the capacity of 8,500 cu.m/day will be provided to the Muttur WSS. A design population of 52,000 people will get water by constructing and intake with the capacity of 40,000 cu.m/day. The major elements will consist of 3 new water towers, a clear water tank with the capacity of 3,000 cu.m, a ground reservoir with the capacity of 60cu.m, 20 km of transmission mains and 127 km of distribution pipelines. There is a sanitation component to provide 1,334 household toilets in trincomalee district for 6,670 beneficiaries. The total estimated cost of the work is Rs. 3,485 million.

The storm water drainage system was already completed in Muttur. The head works and treatment plant works of Muttur water supply scheme is in progress and expected to be completed in June 2014. The physical progress of Muttur WSS was 74% at the end of December 2013.

The substantial delay in completion of intake structures was due to the time taken to repair the damages to the intake access road due to floods and the time taken to redesign the intake structures due to change of river morphology.

## **(ii) Rural Water Supply and Sanitation Component**

### **Anuradhapura District:**

In Anuradhapura the project will provide 84 piped schemes for 166,372 beneficiaries, 1,456 common and private dug wells for 9,591 beneficiaries, 1,778 rain water tanks for 10,047 beneficiaries and 55 tube wells for 4,037 beneficiaries and under the sanitation component 8,987 household toilets will be constructed for 48,377 beneficiaries. The total estimated cost of the work in Anuradhapura is Rs. 999 million.

All the works were completed and augmentation works are being carried out in Anuradhapura due to water quality and quantity issues. All completed schemes were handed over to RSC (N/C) for the continuation of balance works and close monitoring of the operation and maintenance of the schemes.

### **Polonnaruwa District:**

In Polonnaruwa the project will provide 51 pipe schemes for 92,753 beneficiaries, 3,093 common and private dug wells (including rehabilitation works) for 17,627 beneficiaries, 1,205 rain water tanks for 6,501 beneficiaries and 6 tube wells for 490 people. The sanitation component includes 9,027 household toilets for 48,372 beneficiaries. The total estimated cost for the works in Polonnaruwa district is Rs. 874 million.

All the works were completed and Augmentation works of 5 schemes are in progress due to water quality and quantity problems. All schemes and resources were handed over to RSC (NC) for the continuation of the balance works and close monitoring of the operation and maintenance of the schemes.

**Batticaloa District:** In batticaloa the project will provide 78 dug wells for 5,131 beneficiaries, 40 tube wells for 3,060 beneficiaries and 20 rain water tanks for 102 beneficiaries. The sanitation component provides 293 household toilets for 1,465 beneficiaries. The total estimated cost for the works in Batticaloa district is Rs. 45 million.

All the works were completed and the schemes are in operation in Batticaloa district.

### **(iii) Institutional Strengthening Component**

The objective of this component is financial and operational improvement of the NWSDB. The works includes implementing strategies to improve financial management, Assets registry management and improving operational efficiency. The total estimated cost of the project component is Rs. 372 million. All the works were completed under this component.

## **2. Dry Zone Water Supply and Sanitation Project (ADB 5<sup>th</sup> Project)**

NWSDB in implementing a project for water supply and sanitation improvements in North Western and Northern Provinces. Under this project Vavuniya, Mannar Chilaw

and Puttalam towns will be provided with enhanced water supply and sanitation facilities. The total cost estimate of the project is Rs. 21,232.90 million. The overall physical and financial progress at the end of December 2013 is 47% and 16% respectively. Ten Nos. of contracts were awarded in 2013 and another 04 contracts will be awarded in early 2014.

### **Vavuniya:**



*Surface Water Development in Vavuniya Causeway Construction*

In Vavuniya the project will provide a water treatment plant of capacity 12,000 cu.m./day by constructing an impounding reservoir across the Peru Aru Stream. Both surface water and ground water will be combined to provide 9,800 cu.m/ day of treated water to 109,432 people. The major element consists of 3 new water towers, one reservoir and 137 km of distribution pipelines. There is a sanitation component also to provide 2 public latrines and 500 house hold toilets in Vavuniya.

Surface water development, supply and laying of DI, HDPE and PVC pipes, specials, fittings and valves for transmission main and distribution main and construction of public toilets were the awarded projects in Vavuniya in 2013. All the works for the RSC-North building were completed. Causeway construction and construction of Peru Aru reservoir bund are in progress under the surface water development.

**Mannar:** Mannar improvements include, developing 10 bore holes to provide 15,000 cu.m/ day treated water to Mannar township. One new tower and a groundwater reservoir shall be constructed with 33 km transmission and 100 km distribution system to provide fully treated water to a designed population of 55,000 people. Four public latrines and 330 house hold toilets shall be provided.

Septage treatment facility, associate construction and E&M equipment, construction of water storage structures, construction of public toilets and supply and laying of DI, HDPE and PVC pipes, specials, fittings and valves for distribution system were the awarded contracts in Mannar.

**Chilaw:** In Chilaw water will be extracted from Deduru Oya and it is expected to provide 12,000 cu.m/day of treated water to a design population of 91,000. The major elements of the scheme will consist of 12,000 cu.m/day water treatment plant in Bingiriya 2 reservoirs, 43 km of transmission lines and 153 km of distribution under the sanitation sector 2 public latrines and 500 house hold toilets will be constructed. Septage treatment facility construction and E&M equipment contents were awarded in 2013 May. The rehabilitation works of existing water treatment plant at Chilaw and the design works are in progress.

**Puttalam:** Puttalam WSS include a 15,000 cu.m./day intake and water will be extracted from Kala Oya. The population to be served is 197,440. The proposed scheme will consist of 2 reservoirs, 7 pumping stations, 40 km transmission system from Eluwankulama to Puttalam and 9,000 cu.m./ day water treatment plant. The sanitation component will have the construction of 2 public latrines and 500 house hold toilets in Puttalam town and suburbs. The septage treatment facility, construction of E&M equipments and supply and laying of DI, HDPE & PVC pipes, specials, fittings and valves for transmission main and distribution system were the awarded contracts in Puttalam. The rehabilitation of existing WTP at Puttalam and design works are in progress.

### **3. Jaffna Killinochchi Water Supply & Sanitation Project (ADB 6<sup>th</sup> Project)**

This project is to improve drinking Water Supply facilities of about 689,000 people in Jaffna city, suburbs and several townships in the Jaffna Peninsula. It is expected to extract water from Iranamadu tank located in Killinochchi to supplement the Ground Water sources in the Jaffna Peninsula. Implementation will be done in two stages. The total cost estimate is Rs. 18,328 million.

The project Engineering and Institutional Consultancy (PEIC) contract was awarded on December 2012. It was a delay of eight months due to high competency. The distribution survey works completed. The population survey was completed in Jaffna MC area. The water quality monitoring and design works are in progress. Physical and Financial progresses achieved by the project are 24% and 20% respectively.

### **4. Colombo Water Supply Service Improvement Project**

Colombo was one of the few Asian cities to receive piped water supply in the 1,800's. Many parts of distribution network were built over 100 years ago. Although there have been many projects to address increasing water demand, there was no significant rehabilitation of the network, resulting in an extremely high level of Non-Revenue Water (NRW) of 48.2% comprising 41.7% physical losses, 3% administrative

losses, 3% unauthorized consumptions and 0.5% free water supplied to tenement gardens. Fluctuating pressures and intermittent supply are commonplace in some parts of the city. Out of 290,000 cu.m./ day of water supplied to the city, half of the water is lost and does not generate any revenue makes it imperative to reduce NRW on an urgent basis.

The objective of Greater Colombo Water and Wastewater Management Improvement Investment Programme (GCWWMIIIP) will be increased water availability and improved efficiency in the water supply service in the Colombo city.

The expected outcomes are,

- The improved distribution system
- Reduced Non-Revenue Water treatment transmission
- Energy conservation in water treatment and transmission
- Increase the water supply coverage area in Towns East of Colombo
- Institutional reforms in the NWSDB

The objective of Greater Colombo Water and Wastewater Management Improvement Investment Programme (GCWWMIIIP) will be implemented through two projects. First will involve with network rehabilitation of Colombo North and East part where as the second project involves with Colombo water supply improvement, Towns East of Colombo water supply project and water supply system improvements.

The design and procurement works are in progress. The first civil works contract package is expected to be award in 2<sup>nd</sup> quarter of 2014. In order to improve the service level of high elevated areas in Colombo such as Nawala, Rajagiriya, Kolonnawa it is required to construct the 15,000 cu.m ground reservoir at Gothatuwa. However the suitable belongs to Gothatuwa IDH hospital, Ministry of Health. A delay is there in obtaining the land from the Ministry on out right grant on long term lease basis.

### **Projects undertaken with Korean assistance**

#### **1. Ruhunupura Water Supply Project**

The Ruhunupura water supply project is to serve 112,000 people by the design horizon in 2025. Water source for the project is Ridiyagama tank. The total estimated cost of the project is Rs. 9,742 million. Under this project it is planned to provide drinking water to Ruhunupura and Mahawali Development areas.

Construction of intake, Water treatment plant, Reservoirs and towers are in progress and running smoothly. Project can be completed within the planned duration with the current progress by September 2014. The pipe laying works also progressing well which are Raw water main (87%) Transmission main (97%) and Distribution main (66%).

### **Project undertaken with Netherland (DUTCH) assistance**

#### **Augmentation of Negombo WSS/ Negombo Water Supply and Optimization Project**

Negombo is located about 40 km North of Colombo. Its main industries are manufacturing, fishing and tourism. The population within the MC area is about 148,000 and the Negombo MC expanded its city limits recently to accommodate a growing population. The piped water coverage in the MC area at the inception of the project was about 59% and the water supply to most areas was restricted daily from 8.00 am to 3.00 pm because of inadequate water treatment and transmission infrastructure.

The objective of the project was to return to 24 hr. service availability to 100% of the population within the service area which include Kochchikade and Duwa-Pitipana areas in addition to the Negombo MC area. The population benefited will be 198,000 by 2013 and 215,000 by 2025. The project scope included construction of 12,500 cu.m/day capacity new water treatment plant in Bambukuliya, laying of 600 mm dia 14.2 km long transmission main from JaEla to Negombo to transmit 21,000 cu.m/ day treated water from proposed KRB plant, upgrading of existing pumping mains to 350 mm DI (6.00km), upgrading of Electro/Mechanical equipments, supply and installation of 200km long new distribution system and establishment of a modern water asset management system.

The total estimated cost of the project is Euro 36,330,181 and SL Rs.1,513 million. The distribution pipe laying works were completed during the year 2013. Over 7,500 new connections were provided from the completed project so far. No physical works remain in the project.

### **Project undertaken with Australian assistance**

#### **Integrated Water Supply Scheme for the Unserved Area of Ampara District Phase III**

This project is to serve about 200,000 people living in the un-served areas of Ampara district and some of the areas of Monaragala and Batticaloa districts as well. The main components of the projects are construction of 27,000 cu.m./day. Treatment plant and intake elevated towers at Koneshapuram (1,000 cu.m) Bakkiella (1,000 cu.m), Namal oya (750 cu.m) Inginiyagala (750 cu.m), Central camp (750 cu.m) and Tottama (600 cu.m), water sumps at Himidurawa (2,500 cu.m), Paragahakele (1,600 cu.m), Dhadayanthalawa (1,600 cu.m) and Gonagolla (1,600 cu.m), supply and laying of DI transmission mains for 100 km and supply and laying of HDPE pipes and fittings for distribution system (about 900 km). This project can provide nearly 40,000 new water connections and the

total cost of the project has been estimated as Rs. 19,920 million.

The opening ceremony of the water towers at Thottama, Namal oya, Inginiyagala, Bakkiella and Central Camp were held. The EOI was called on December 2013 for supply and laying of HDPE pipes and fittings for distribution system and construction of offices and staff quarters. As per the schedule all the works would be completed by June 2016.

The project has achieved 60% physical progress and 62% financial progress as at end of December 2013.

### **Project undertaken with French assistance**

#### **Greater Trincomalee Integrated Water Supply Project**



*Construction of 2,000 Cu.m. capacity ground reservoir at Wellamandal*

The objective of this project is to increase the production capacity of the Kantale water-treatment plant to 54,000 cu.m/day (12 MGD) in 2025 and thereby increase the service level in the entire Trincomalee integrated WSS. The project scope is to rehabilitate and upgrade the existing Trincomalee WSS and construction of new schemes at Pulmoddai and Echchilampattu. About 330,000 people in Town Gravets, Kantale, Thambalagama, Kinniya, Kuchchaveli and part of Eachchilampattu DS divisions will be benefited by this water supply project.

The total cost estimate of the project is Rs. 4,200 million out of which Euro 10 million is from the French Development Agency (FDA), Euro 10 million from the French Ministry of Finance (RPE) and Rs. 1,003 million from the GOSL. The water source is Mahaweli River with conventional treatment system.

The Project components in brief are Construction of new intake and pump-house at Alle Kantale bridge, Laying a new raw-water and transmission mains, Distribution system improvements, Rehabilitation and augmentation of Kantale WTP and service reservoirs, Introduction of a SCADA system and Construction of new WSSs at Pulmoddai and Echchilampattu.

Presently the scheme produces 5.5 MGD. 36,000 No. of connections were provided for a population of 180,000 people. Some problems were arised from the farmers for the extension of water from Mahawali River. During

the year 2013 construction of water tower at Kinniya and construction of ground reservoir at Wellamanal were completed. Pipe laying works in Sampaltheevu, Kinniya, Thambalakamam, Kantale and Trincomalee are in progress. The project has achieved about 50% overall physical progress and 82% financial progress at the end of December 2013.

#### **Project undertaken with Belgium assistance**

##### ***Kolonna / Balangoda Water Supply Project***

This project includes two main components which are Augmentation of Balangoda Water Supply Scheme and Construction of a New Water Supply Scheme for Kolonna. Project was commenced on 08th May 2012 and planned to complete within two years. This project is funded by the GOSL and Government of Belgium. The total estimated cost of the project is Rs. 4,658 million.

The proposed Augmentation of Balangoda WSS is planned to expand the water supply coverage by issuing new connections for 8,000 families and fulfill current deficiencies. This augmentation of Balangoda WSS will serve 40,000 population and commercial and industrial water demands in Balangoda urban council area and a part of Imbulpe Pradeshiya Sabha area which are situated in Ratnapura District. Accordingly, the total water demand has been assessed as 7,700 m<sup>3</sup>/day in 2030 which will be abstracted from Walawe River at Weliharannawa where the existing intake is situated. In addition to the rehabilitation works of the existing treatment plant; intake with the capacity of 7,700 cu.m/day, WTP with the capacity of 7000 cu.m/day, 02 Nos of Ground water reservoirs and supply and laying of pumping main, transmission main and distribution mains are included in the project.

The proposed Kolonna WSS is designed to provide safe drinking water to 40,000 people in Kolonna Pradeshiya Sabha area throughout the year and a part of Embilipitiya Pradeshiya Sabha area during the rainy season. 8,000 new connections will be issued, in addition to commercial and industrial demand. Total water demand has been assessed as 7,700 cu.m/day in 2013, which will be extracted from Ereporuwa river at Vijeriya by constructing a 3 m high and 25 m long weir. The projects components are weir of 3 m height and 25 m length, WTP with the capacity of 7,000 cu.m/day, 02 Nos of

Ground reservoirs and supply and laying of Raw Water main, transmission main and distribution main.

The physical progress of the project is behind the schedule due to some land Issues, access route issues, environmental examinations, shortage of staff and bill payment issues. The physical and financial progress of the project at the end of 2013 were 53% and 44% respectively.

#### **Projects Undertaken with Hungarian Assistance**

##### ***Rehabilitation of Labugama – Kalatuwawa Treatment Plants Project***

This project is functioning under the funds of Hungarian government and from the local government funds. The project cost allocated to rehabilitate Labugama Treatment plant is Euro 16,714,045 and for Kalatuwawa Treatment Plant is Euro 17,383,906. This project includes all renovation works and new construction works for the identified components at Labugama and Kalatuwawa Water Treatment Plants.

The project was commenced on 21<sup>st</sup> October, 2013 and the duration of the project is 36 months. Renovation works of the non-process structures at Labugama and Kalatuwawa were started and some of them were completed. New construction works and the rehabilitation works of the process-structures will be commenced after the approval of the designs. The designs are expected to receive during the 1st quarter of 2014. Some productivity improvement activities were planned to carryout during 2014.

## FOREIGN FUNDED SEWERAGE PROJECTS

### Projects undertaken with Asian Development Bank assistance

#### **Greater Colombo Wastewater Management Project**

This project consists of rehabilitation of six waste water pump stations at Kolonnawa, Dehiwala and Mount Lavenia Municipal Council areas. The total estimated cost is Rs. 1.1 billion. The project period is from 2010 to 2015. The physical works of the projects will be started in 2014. It was planned to map existing sewer connections with extensions jointly with mapping section.

The tenders were called for the project in 2012 and the bids were opened on March 2013. The technical and financial evaluations were taken place during the year 2013 and the price negotiation scheduled with the most responsive bidder. The cabinet approval will be granted to the final contract value arrived after the negotiation process.

### Projects undertaken with Swedish assistance

#### **Wastewater Disposal Systems for Ratmalana/Moratuwa & Ja - Ela/Ekala Areas**

This Project is implemented to provide infrastructures for safe disposal of wastewater generated in two industrial areas, Ja-Ela and Ratmalana at a cost of Rs.17,471 million. SIDA provides a loan of USD 93.75 million for construction works and a grant of SEK 56.21 million for the construction supervision contract, while GOSL provides Rs. 5, 122 million counterparts funding.

Construction of 7,250 cu.m wastewater treatment plant and 3 pump houses together with associated pipe collection system in Ja-Ela were completed in Feb 2012 and handed over to the O&M section. The facilities now in operation serves 88 industries, 23 commercial institutions, 122 households, Nivasipura housing Scheme (1202 units) and the Air Force camp in Ekala. It had received an income of Rs. 2.5 million upto Oct. 2013.

There are some unexpected delays in completing the Moratuwa scheme due to the bankruptcy status of the main Contractor leading to termination of work. However by that time in Nov. 2013, considerable amount of construction work (89%) has been completed. Since then, using appropriate procurement means, rest of the work are being done and commissioning of the Wastewater treatment plant and 04 pump houses, started with available collection system catering 32 Industries and 2,230 domestic users.

The overall physical and financial progress of the total project at the end of 2013, as a result remains at 91% and 86% respectively.

### Projects undertaken with JICA assistance

#### **Kandy City Wastewater Management Project**

The indiscriminate disposal of waste water in the Kandy city causes pollution of the kandy lake, Meda ela and Mahawali river, the main drinking water source to Kandy and Matale districts. In order to find a permanent solution to this problem, NWSDB proposed to implement a wastewater disposal system for the Kandy city. The proposed project intends to collect wastewater in 732 hectares of area in the city and then divert to a treatment plant of capacity 14,000 cu.m/day through a network of 92 km long pipe lines.

This project will be completed in 2018. Around 55,000 resident population and 150,000 migrant population in Kandy will be benefitted from this project.

The effluent discharged details are as follows: Biological oxygen demand (in 5 days at 20 °C) should be less than 20 mg/l, total suspended solids should be less than 20 mg/l, Chemical oxygen demand should be less than 250 mg/l Total Kjeldahl Nitrogen should be less than 10 mg/l and fecal coliform (Most probable Number per 100 ml) should be less than 40.

The total cost estimate of the project is Rs.22,585 million. The consultancy part of the project was completed and the construction activities were started in 2013. All the lands for construction activities were cleared except one.

JICA has queried the consultant and project regarding the differences in the recommendations made at the evaluation by Technical Evaluation Committee and the consultant. Clarifications were submitted by the consultants and Technical Evaluation Committee to JICA for the package I of the project (Design and construction of wastewater treatment plant, Main pump station, treated effluent Disposal system, sludge drying beds and supply of operation and maintenance equipment).

For the package II (Design and Construction of trunk sewers, Branch sewers and service connections, manhole pump stations and supply of operation and maintenance equipment's) the Cabinet Ministers approved to award the contract to the lowest bidder. The letter of acceptance was issued on October 2013, The contract was signed on November 2013 and the commencement of construction activities were started in the same month.

The bidding period for package III (Design & Construction of property connections testing and commissioning) was extended by one month during the late 2013. The property connection survey to have an accurate database in every wastewater disposal place within the project area was completed. The delay in the procurement processes has been a major issue.

An Environmental monitoring programme was started to assess prevailing environmental conditions and to gather information necessary to impact mitigation and management due to the project activities.

### **GPOBA Funding Sewerage Project**

#### ***Increasing household sewerage connections & Off Network Sanitary Solutions in Greater Colombo (World bank funded - GPOBA)***

The principal objective of the project is to increase the number of poor households in Greater Colombo area who benefits from improved sanitation systems and to ensure that their domestic wastewater is effectively managed prior to disposal rather than being disposed untreated in urban water ways.

The secondary objective of the project is to pilot Output Based Aid (OBA) as efficient mechanism for delivery of improved sanitation services to poor households. The project area includes the areas of greater Colombo in which NWSDB is the sewerage service provider.

The NWSDB and Swedish International Development and Cooperation Agency (SIDA) submitted a joint proposal to the Global partnership on Output-Based Aid (GPOBA) requesting the support. The grant agreement has been signed by GPOBA and the Ministry of finance.

The project will provide service to 5,015 poor households under stage I in Dehiwala/ Mount Lavenia area, Moratuwa Municipal Council area, Kolonnawa and Ja-Ela pradeshiya Sabha areas who rely on unsanitary pit latrines, non-functioning septic tanks, and areas where no sanitary facilities available. The plan is to complete the project within 3 years. The total estimated cost is Rs. 1,339 million.

Works were commenced to provide direct connections to households in Dehiwala/ Mount Lavenia, Ja-Ela/ Ekala, Ratmalana, Moratuwa and Kolonnawa areas for 1,475 sewer connections and 31% of the works was completed at the end of 2013.

Decentralized treatment and disposal system (DEWATS) for Diyawrapura housing scheme, Moratuwa for 64 sewer connections were completed. This included sewer connections, reticulation system, Treatment plant, Pumping station and force main.

Tender for Badovita simplified extensions with pumping for 1,500 house connections including sewer network, pumping stations and force mains was decided to be awarded and work will be commenced in January 2014. Furthermore, detailed designs and document evaluations were completed for another 2 projects which will cover more than 3,500 sewerage connections and tender was opened for DEWAT system for Tsunami Housing Scheme at Weerasena Silva Mawatha, Ratmalana for 328 connections.

### **Project undertaken with China assistance**

#### ***Greater Kurunagala Water Supply and Sewerage Project***

At present about 150,000 people are concentrated in Kurunagala town and immediate suburbs. During the past two decades, there had been an exponential growth of urban population around the city with increased commercial and industrial activities. However absence of sufficient drinking water supply and safe wastewater disposal system has resulted severe environmental problems and public unrest. It was planned to improve the existing drinking water supply (Package A) and to introduce a sewerage system (Package B) under this project.

The existing two water treatment plants produce only 6,750 cu.m./day which is not adequate at all. Therefore the existing water treatment plants will be augmented to obtain 9,000cu.m/day while constructing another new water treatment plant of 5,000cu.m/day. Because of Deduru oya (water source) dries up during the dry spell it is planned to construct weir across the river at Barandana and construct impounding reservoir to obtain water in dry spell.

The project components in package A are weir across Deduru oya (100m), intake structures, pump houses, Raw water mains (8.5km), Water treatment plant (5,000 cu.m/day), Chemical building, Backwash recovery facility, sludge disposal system, Water towers (1,500 cu.m) Ground water storage tank (750 cu.m), Treated water transmission pipes (8km) and distribution network (110km).

The package B of the project will provide piped sewerage facilities to the identified areas within the Kurunagala Municipal council and part of the adjacent areas. Sewerage project includes 134km of sewers/ pipes gravity sewer network and force mains, connection pipes, Vertical pipes and a Central Sewerage Treatment Plant of 4,500 cu.m./day. The plan is to provide 3,500 individual house connections immediately after the project. The external sewer system at Kurunagala Teaching Hospital will be rehabilitated under this project.

The project management unit was established and staff requirement also was completed. The contractor mobilizing at the sight and surveying work and initial investigations are commenced. 90% of the land acquisition works were completed and the environmental impact assessments for the project were completed and approvals were obtained already. The inauguration ceremony was held in grand level with the presence of Hon. Dinesh Gunawardana, Minister of Water Supply and Drainage on September, 2013.

A discussion was held with the hospital management about the sewerage treatment of Kurunagala teaching Hospital and studies were started to identify the hospital wastewater system. The physical progress of the project at the end of December 2013 was 4%.



## **GOSL FUNDED SMALL AND MEDIUM SCALE WATER SUPPLY PROJECTS**

### **Central Province**

#### ***Kundasale Integrated Water Supply Project -Stage II***

This is an augmentation to serve about 130,000 people in Kundasale, Balagolla, Digana, Arattana and Wawinna, Pannila areas. Water source is Mahaweli River/ Huluganga with full treatment and capacity of 30,000 cu.m/day. Total Cost Estimate was revised in 2013 and the revised is 1,685 million. Presently a production of 18,000 cu.m/day is obtained from Arattana WTP. Treatment Plant improvements, pipe laying and M&E works are in progress. The overall physical progress at the end of 2013 was 87%.

#### ***Palapathwela Water Supply Project***

This is an augmentation plan to serve 22,000 people in Palapathwela and Kottogoda areas using Suduganga as the water source. Total Cost Estimate is Rs. 150 million. Treated water is pumped to a ground reservoir located at Palapathwela from Matale WSS and distribution is planned through a 8km long pumping main. Supply and laying of distribution pipes and M&E works are in progress while the pump house construction was completed. Overall progress at the end of 2013 was 96%.

#### ***Matale Water Supply Project***

This is a rehabilitation of the existing WSS to serve 30,000 people in Matale town area and suburbs. Water source is Suduganga with full treatment having existing treatment plant capacity 12,000 cu.m/day. Total Cost Estimate of Rs. 385 million was revised to Rs 525 in 2013. It is proposed to improve the capacity up to 16,000 cu.m/day under this improvement through construction of a new intake sump and pump house, treatment plant augmentation, pumping and distribution system improvements. Pipe laying in Kumbiyangana road was completed. Treatment plant and intake improvements and M&E works are in progress. The overall progress as at the end of 2013 is 92%.

#### ***Marassana Water Supply Project***

This is an augmentation to serve 25,000 new beneficiaries in Marassana town and suburbs, using raw water from Ma-oya with a full treatment method. The TCE was revised in 2013 and the capacity of the treatment plant is 5,000 cu.m/day. The TCE was revised in 2013 and the revised TCE is Rs. 339 million. Present production of 2,200 cu.m/day capacity is not enough to cater the rapid growing water demand of the area. All together there are about 3,500 service connections. Supply and laying of pipes at Mailapitiya and Pothgoda zones are in progress. Distribution improvement also started in 2012. The overall progress as at the end of 2013 is 92%.

#### ***Thalawakale / Lindula Water Supply Project***

This is an augmentation of the existing scheme to serve

15,000 people in Thalawakale and Lindula areas. Water sources are Great Western and Nanuoya. The revised TCE is Rs. 352 million and funding sources are GOSL and Ceylon Electricity Board (rechargeable). The existing WTP of partial treatment having capacity of 1,650 cu.m/day is being augmented by increasing the production capacity up to 2,500 cu.m/day. It includes intake improvements and adding the components aerator, flocculator, sedimentation and pressure filters to the WTP. In addition it is expected to expand the existing distribution system to resettled areas of Upper Kotmale hydro-power project. Construction of intake weir, pump house and treatment plants are completed. Chemical reuse and Installation of Intake pumps are in progress. Overall progress at the end of 2013 was 90%.

### **North Central Province**

#### ***Medirigiriya Water Supply Project - Stage I***

This is a new scheme planned to serve about 72,000 beneficiaries in Medirigiriya Divisional Secretary area. Water source is Kaudulla tank with treatment including flocculation, sedimentation, rapid sand filters and disinfection for 9,000 cu.m/day. Sludge thickener and sludge drying beds are also proposed for treatment of sludge and backwash water. Total cost estimate is Rs. 638 million. This scheme aims to provide safe drinking water from Kaudulla Tank. This project consists of intake, raw water pumping system, WTP, 02 Nos. water towers storage facilities, transmission system and distribution system. The construction of intake was completed and distribution works were commenced this year. Construction of WTP and towers and transmission main works are in progress. Physical progress at the end of 2013 was 82%.

#### ***Minneriya Water Supply Project***

This is an augmentation of the existing scheme to serve 69,000 people in Minneriya, Girithale and Hingurakgoda area. Water source is Minneriya tank and existing treatment process consists of slow sand filters and a capacity of 10,900 cu.m/day. Total Cost Estimate is Rs. 100 million. Minneriya & Hingurakgoda water supply schemes are functioning from Minneriya WTP which is the only WTP available for the entire DS area. The scope of the project includes upgrading the intake capacity to 13,600 cu.m/day. Augmentation of the existing WTP consist of construction of sedimentation tank, rapid sand filter, storage facilities and new installation of M&E equipment. Improvements for the treatment plants and distribution lines were almost completed. The physical progress at the end of 2013 was 97%.

#### ***Mahanelubewa Water Supply Project***

This is an augmentation of existing scheme to serve 2,855 people in Mahanelubewa area. The project period is 2 years and the project component is distribution improvement only. This project was completed in year

2012. The physical and financial progress at the end of 2013 were 98% & 102% respectively. The Total Cost Estimate is Rs. 130 millions.

#### ***Ipalogama Water Supply Project***

This is a new scheme intends to serve 18,000 beneficiaries in Ipalogama Ranaviru village including 4 GN divisions in Ipalogama Pradeshiya Sabha area. The treatment plant with 13,500 cu.m/day capacity and the intake are common to both Ipalogama and Kekirawa existing water supply schemes. The water source is Kalawewa. Total length of the raw water pumping main is 4 km and the length of transmission main is 4 km. Total Cost Estimate is Rs. 798 million under GOSL funds. The construction of intake and sewerage system for Ranaviru village were completed. The construction of treatment plant and water towers are completed. Distribution systems are to be completed. Physical and financial progress at the end of 2013 were 94% and 79% respectively.

#### ***Dayata Kirula 2013 (Oyamaduwa WS)***

This project intends to provide safe drinking water within 2 years to 27,500 people in Mahawilachchiya & Thanthirimale areas in Anuradhapura district, which will cost Rs. 830 million. It is proposed to improve Thanthirimale water supply and Oyamaduwa Water Supply Schemes. Viharamuna WSS was completed. Thanthirimale WSS and Oyamaduwa TP works are in progress. The physical and financial progress at the end of 2013 were 96% and 78% respectively.

#### ***Eastern Province***

##### ***Kantale (Agbopura) Water Supply Project***

This project meets daily requirement of 25,000 beneficiaries in Akbopura Town, Batukachchi, Sugar factory Road, Bathiyagama in Trincomalee district. The estimated Total Cost Estimate is Rs. 275 million. The physical and financial progress at the end of December 2013 were 100% and 82% respectively.

##### ***Thambalagamuwa Water Supply Project***

This project intends to provide safe drinking water facilities to 30,000 beneficiaries in 96 mile post, Galmetiyawa, Mallipatana, Sarag Nagar, Mera Nagar, Mera Nagar, Kaviladi in Trincomalee District. The Total Cost Estimate is Rs. 95 million. Supply & Laying of distribution mains are in progress. The physical and financial progress at end of 2013 were 100% and 89% respectively.

##### ***Serunuwara Water Supply Project***

This is a new project proposed to serve 9,500 beneficiaries in Sumedankapura, Serunuwara, Mahaveligama, Thanganagar, Kawanchipura in Serunuwara, Kallaru and suburbs. The Total Cost Estimate is Rs. 110 million. Physical and financial progress at the end of 2013 were 100% and 96% respectively.

#### ***Dehiattakandiya Water Supply Project -Stage I & II***

This project intends to extend the safe water supply in Dehiattakandiya to 16,000 new beneficiaries in Kadirapura, Bakmeedeniya, Ridi ella, Sandunpura. Total Cost Estimate Rs. 300 million. The physical and financial progress at the end of 2013 were 100% and 91% respectively.

#### ***Transmission Main from Kanthale to Thampalakamam***

This project is to transport water from Kantale WS to Thampalakamam reservoir. Total transmission main distance is 40km. Total estimated cost is Rs. 1,350 million. Physical progress and financial progress at the end of December 2013 were 98% and 90% respectively.

#### ***Wadinagala /Wan ela WS***

This project proposed to serve 14,000 beneficiaries in Jayanthipura, Pansalgodella, Soorangala and suburbs. The total cost estimate is Rs. 808.50 physical and financial progress at the end of December 2013 were 10% and 9% respectively.

#### ***North Western Province***

##### ***Mahawa/ Wariyapola/ Nikawaratiya Water Supply Project***

This is a new project planned to serve 45,000 families in the area. TCE is Rs. 996 million. Nikawaratiya and Mahawa part of the project is completed and now functioning. Capacity of Nikawaratiya/ Mahawa scheme is 6,500 cu.m/day and the water source is Magalle Wewa. Full treatment facilities are available in the scheme. Construction of Wariyapola scheme commenced in the year 2013. Capacity of the full treatment plant is 2,000cu.m/day. Water source is Maguru oya. It is expected to complete this project in 2014.

##### ***Ibbagamuwa Water Supply Scheme***

This is a new water supply scheme to provide drinking water facilities to 11 GNDs in Ibbagamuwa DS division.

The total beneficiaries of the project are 7,400. The total estimated cost of the project is Rs. 239 million. The capacity of the treatment plant is 15,000 cu.m/day.

The physical and financial progress at the end of December 2013 were 20% and 51% respectively.

##### ***Dambadeniya Water Supply Scheme***

This is a new water supply scheme in Dambadeniya DS division to covers 70 GNDs with a total estimated cost of Rs. 796 million. The total number of beneficiaries of the project is 51,835. The capacity of the scheme is 4,500 cu.m/day. The physical and financial progress at the end of December 2013 were 7% and 8% respectively.

##### ***Divulgane Water Supply Scheme***

This project is to provide pipe born water to Divulgane and Dalupothagama GN Divisions by dug well with a total

estimated cost of Rs. 47 million. The no. of beneficiaries of the project are 1,800. The physical and financial progress at the end of December 2013 were 45% and 32% respectively.

### **Sabaragamuwa Province**

#### ***Embilipitiya Water Supply Project***

This is an augmentation of existing scheme with a treatment plant which intends to serve 84,000 beneficiaries in Embilipitiya, New town, Pallegama, Udagama, Kalagedi Ara and Yodagama. Total Cost Estimate is Rs. 607.89 million. Construction of intake and water treatment plant are in progress. The physical and financial progress at the end of 2013 were 95% and 93% respectively.

#### ***Udawalawa Water Supply Project - Stage I & II***

This is an augmentation of the existing WSS. TCE is Rs. 974 million. The total beneficiaries are 9,400 in Kolombage Ara, Nindagam Pelessa, Ranchamadama, Thebolketiya and Udawalawa areas. Construction of treatment plant and intake were completed during 2009. The physical and financial progress at the end of 2013 were 98% and 73% respectively.

#### ***Godakawela Water Supply Project***

This new project intends to provide safe drinking water to 22,500 beneficiaries in Godakawela, Kosnathota, Rideewela and suburbs covering Alpitaya, Balavinna East, Godakawela, Mawatalanda and Meddegama areas. The water source is Rakwana Ganga and the water is fully treated in a WTP with the capacity of 4,500 cu.m/day. The project components are WTP, caretaker quarters, gas chlorinators and back wash pumps. Total Cost Estimate is Rs. 288 million. The physical and financial progress at the end of 2013 were 98% and 77% respectively.

#### ***Galigamuwa Water Supply Project***

Currently there is no pipe borne water supply in Galigamuwa Town. This project includes construction of new intake (5,000 cu.m/day) at Alawwa, a conventional WTP with the capacity of 5,000 cu.m/day, construction of ground reservoirs (225 cu.m and 1800 cu.m), pump house, supply & laying of 12 km, DI pumping mains, improvement for the existing distribution network & installation of pumps. Total Cost Estimate is Rs. 841 million and 30,800 people are to be benefitted in Galigamuwa town area including Helamada, Weragoda, Palapoluwa, Ballapana, Udabage, Nabariyawa, Arandara and Boyagama. The physical and financial progress at the end of 2013 were 13% and 35% respectively.

#### ***Nivithigala Water Supply Project***

This project intends to provide safe drinking water to 14,500 beneficiaries covering Doloswala, Halkandiliya, Niwithigala, Watupitiya, Wakdehiwatta areas in Ratnapura District. Total Cost Estimate is Rs. 99 million.

Construction of intake, storage tank and pumping main works are in progress. Most of the works are delayed due to issues in allocation of funds. The physical and financial progress at the end of 2013 were 80% and 78% respectively.

#### ***Pelmadulla Water Supply Project***

This projects intends to supply safe drinking water to 14,500 beneficiaries in Pelmadulla covering Ihala Bopitiya, Pelmadulugama, Pelmadulla town, Pahala Bopitiya and Narangoda areas in Ratnapura District. The Total Cost Estimate is Rs. 384 million. The physical and financial progresses at the end of 2013 were 95% and 96% respectively. Construction of water treatment plant intake and pumping main works are in progress. Some works are delayed due to fund allocation and electricity supply. This project can be completed in June 2014.

#### ***Yatyanthota Water Supply Project***

This project intends to supply safe drinking water for 9,400 beneficiaries in Yatiyantota town, Parussella, Mahawila and Pahala Garagoda areas in Kegalle District. The revised Total Cost Estimate is Rs. 166 million. Intake improvement works were completed. Pipe laying works were delayed due to fund allocation. The project was partially commissioned in early 2009. The physical progress at the end of 2013 was 85%. (Physical progress value reduced due to additional works.)

#### ***Kiriella Water Supply Project***

This projects intends to supply safe drinking water to 8,000 beneficiaries in Epatawala, Idangoda, Kiriella and Munasinghepura areas in Ratnapura District. The Total Cost Estimate is Rs. 205 million. Stage I of the project was completed in December 2011 and stage II was commissioned in early 2012. Designs work was done in 2013 and there were some delay due to arrival of materials. The physical and financial progress at the end of 2013 were 100% and 17% respectively.

#### ***Madola Water Supply Project***

This project is to provide pipe born water to Madola GN Division. The no. of beneficiaries of the project are 4,800. Total cost estimate of the project is Rs. 132 million. The physical and financial progress at the end of 2013 were 0% and 4% respectively.

### **Southern Province**

#### ***Hakmana Water Supply Project***

Under the proposed Hakmana WSS, it is planned to supply safe drinking water to 10,000 beneficiaries in Nanawelpita, Kongala, Beruwewela and Muruthamuraya areas in Hakmana. The project was to be implemented during the period from 2010 - 2012. The water source is a bore hole and water goes under partial treatment at a water treatment plant of capacity 1,800 cu.m/day. The major project components are

intake improvements, new WTP, transmission and distribution pipe lines and supply & installation of pumps. The original TCE of the project is Rs. 383 million. The physical and financial progress at the end of 2013 were 98% and 52% respectively.

#### ***Pitabeddera Water Supply Project***

Proposed water supply scheme intends to provide water to 6,000 people in Dehigaspe, Dankoluwa, Pitabeddera and Gorakawela areas in Pitabeddera town. The scheme consists of a conventional treatment of capacity 1,200 cu.m/day and will use two bore holes as the water source. The Total Estimated Cost of the project was revised to Rs. 130 million. Although construction activities were started in year 2007, progress was very slow due to the non availability of funds and poor performances of the contractor. A new bore hole was constructed and the pump has to be changed according to the new bore hole. The physical and financial progress at the end of 2013 were 100% and 82% respectively.

#### ***Bonavista Kanda Water Supply Project***

This project has been planned for the benefit of people living in 137-C Bonawistawa and 136-A Maharamba in Bonavista Kanda area in Matara District. The scheme will cater for 1,400 population. The total estimated cost of the project is Rs. 57 million. The delay in works were due to removing blasted rocks along the pipe laying area, newly exposed rocks and difficulty of water supply for construction works. The physical and financial progress at the end of 2013 were 100% and 78% respectively.

#### ***Gonapinuwa Water Supply Project***

The scope of the project is implementation of a distribution system in Gonapinuwa DS division to cover 21 GN divisions. The number of beneficiaries of the project is 20,825 and the total estimated cost is Rs. 349 million. The funding arrangements will be done by local bank. This project was started in 2013 and is being planned to complete within 2 years. Full treatment facility will be constructed using the Gin ganga as the water source by extension of Baddegama Integrated WSS. Preparation of the RFP is in progress and the funding arrangements have been changed from Capital Budget to local bank recently. Supply of PVC pipes are completed. The physical and financial progress achieved at the end of December 2013 were 14% and 9% respectively.

#### ***Bentota Water Supply Project***

The scope of the project is implementation of a distribution system in Bentota DS division to cover 22 GN divisions with increasing the pump capacity. The total estimated cost of the project is Rs. 789 million and will be funded by local bank. The water source of the project will be Gin ganga which is an extension of Baddegama Integrated WSS. Totally about 18,850 beneficiaries will be served including Induruwa and

Bentota towns. This project was started in 2013 and is planned to complete in 2015. The project will consist of full treatment complete with sludge drying beds. Supply of PVC pipes are completed and preparation of RFP is in progress. The physical & financial progress at the end of 2013 were 13% and 6% respectively.

#### ***Udugama Supply Project***

This project intends to supply safe drinking water to 6,000 beneficiaries in Southern District. The total cost estimate is Rs. 145.33 million. Beneficiaries covering areas are Madyama, Udugama West, Udugama, Ukwita and Gonadeniya. The physical and financial progress at the end of December 2013 were 100% and 97% respectively.

#### ***Baddegama Water Supply Project***

This project is to provide pipe born water to 33,800 beneficiaries and total cost estimate is Rs. 441 million. covered areas are Ampegama, Weweldeniya, Bataketiya, Ganegama, Baddegama and Boralukanda. The physical and financial progress of the project were about 1% and 0% at the end of December 2013 respectively.

#### ***Dikkumbura Water Supply Project***

This project is to provide pipe born water to 17,100 beneficiaries with total cost estimate of Rs. 275 million. Benefitted areas are Thiththagalla, Ampawila, Dikkumbura, Horadugoda and Andogoda. The physical and financial progress of the project were 0% and 6% at the end of December 2013 respectively.

#### ***Uva Province***

##### ***Ohiya Water Supply Project***

This is a new scheme which intends to serve 10,000 people in Hinnarangalla, Galedanda, Welimada, Mirahawatha, Dabawinna in Welimada town and suburbs. Water source is Uma Oya with full treatment plant of capacity 2,000 cu.m/day. The Total Cost Estimate is Rs. 265 million and the physical and financial progress at the end of 2013 were about 96% and 89% respectively. Financial constraints were faced by the contractor due to delay in payments as allocations were not received on time.

##### ***Monaragala Water Supply Project Stage II***

This is an augmentation of the existing scheme to serve about 10,000 people in Monaragala town and suburbs covering Monaragala, Muppana, Jayasenagama, Madurakatiya and Sirigala. Water source is a stream through G-Lon estate with partial treatment of capacity of 3,500 cu.m/day. The Total Cost Estimate is Rs. 154 million and the physical and financial progress at the end of 2013 were about 100% and 98% respectively.

### **Ambagasdowa Water Supply Project**

This is an augmentation scheme to serve 17,750 people in Ambagasdowa and suburbs covering Karagahaulpatha, Madawela and Uwaparanagama areas. Water source is Bomburu Ella with full treatment and a capacity of 3,000 cu.m/day. Total cost estimate is Rs. 382 million. The delay in the project was due non receipt of funds. The physical and financial progress at the end of 2013 were about 72% and 47% respectively.

### **Wellawaya Water Supply Project**

This project intends to provide safe drinking water to 6,000 beneficiaries of Wellawaya, Kudaoya, Handapanagala, Yalbowa, Thellula and Athiliwewa areas in Wellawaya in Monaragala District. The Total Cost Estimate is Rs. 250 million and the physical and financial progress at the end of 2013 were about 95% and 60% respectively.

### **Badalkumbura Water Supply Project**

This project intends to provide water to 22,000 beneficiaries in Badalkumbura area in Monaragala District covering Badalkumbura, Nakkala, Ella, Hindikiula and Mediriya areas. The Total Cost Estimate is Rs. 124 million. The physical and financial progress of the project were about 90% and 91% as at the end of 2013 respectively.

### **Buttala Water Supply Project**

This project intends to provide water to 38,250 beneficiaries in Monaragala area under Dayata Kirula program. The Total Cost Estimate is Rs. 295 million. The physical and financial progress of the project at the end of 2013 were 100% and 98% respectively. This project has been completed.

## **Western Province**

### **Kirindiwela Water Supply Project**

This is a new project planned to serve 8,000 people in Kirindiwela area. The project period is 5 years. Water source is Kelani River with full treatment and effluent is discharged to inland water canal. The Total Cost Estimate is Rs. 198 million. The new treatment plant which can supply 2,750 cu.m/day is in progress at the existing treatment plant site in Pugoda. The balance work at the intake, repairs to the WTP at Pugoda, pipe laying works and construction of sludge drying beds are in progress. Overall physical and financial progress as at the end of 2013 were about 99% and 99% respectively.

### **Nittambuwa - Veyangoda Water Supply Project**

This is a new augmentation project which intends to serve 15,000 beneficiaries in Nittambuwa, Thihariya, Warana and Kalagedihena. The water will be extracted from Attanagalu Oya and undergo full treatment in a WTP having capacity 3,000 cu.m/day. The Total Cost Estimate for the project is Rs. 210 million. The poor performance of contractor and delay in design of sludge system effected the progress of the project. The balance

work of Treatment Plant and sludge removal system works are in progress. Overall physical and financial progress as at the end of 2013 were about 98% and 97% respectively.

### **Kalutara Integrated Water Supply Project - Stage II**

This scheme was designed in order to extend water supply to Payagala, Maggona, Beruwala, Dharga Town, Bentota and Aluthgama areas to serve 210,000 people. Project was started in 2006. Water Source is Kalu Ganga with full treatment and capacity is 56,250 cu.m/day. The revised Total Cost Estimate is Rs. 1,366 million.

The main objective of stage II is to improve the distribution system to Southern areas of Kalutara. Laying of 600 mm DI/HDPE 9 km pipeline from central junction to Magonna, laying 600 mm DI/HDPE pipeline from Magonna to Beruwala (5 km) and transmission main from Beruwala to Darga Town are in progress. The physical and financial progress at the end of 2013 were 73% and 72% respectively.

### **Katunayake Water Supply Project Stage I & II**

About 29,000 people in Katunayake, Seeduwa and Raddolugama will be benefitted by this project with the capacity of 4,500 cu.m/day. Water source is Dandugam Oya and water requirement will be obtained from augmented Raddolugama WTP. The Total Cost Estimate was revised to Rs. 470 million. Augmentation of the existing Raddolugama WTP was commenced and part of the distribution system has to be laid. Supply of pipes, laying of pipes along Negombo Puttalam road, pipe laying at Katunayake - Seeduwa areas and construction of pump house at Raddoluwa TP are in progress. The physical and financial progress at the end of 2013 were 72% and 69% respectively.

### **Jaltara - Ranala Water Supply Project -**

#### **Phase I Stage I & II**

This project has been phased out and then again phase I, is staged out due to financial constrains. Phase I Stage I covers Jaltara and Henpita GNDs. Phase I Stage II covers Atigala East, Atigala West, Panaluwa and Batawala GNDs. Another 27 GNDs of Kaduwela and Homagama DSDs are to be covered under Phase II. It was expected to serve 7,646 population under Phase I Stage I, 10,273 under Phase I Stage II and 92,118 Under Phase II in 2030. Phase I project area is by a branch off pipe line at Embulugama Junction on low level road from the existing transmission main which supplies water to Colombo from Labugama WTP. Phase I Stage I of this project was completed in 2010. The Total Cost Estimate of Phase I Stage I was Rs. 103 million. Design and material procurement of Phase I Stage II are already completed and physical progress of the project is around 96% The Total Cost Estimate for Phase I Stage II is Rs. 114 million. The physical and financial progress at the end of 2013 were 96% and 71% respectively. The TCE of the project has been revised from 217.6 million to 223.4

million to cover the additional work in Jaltara Ranala Area.

#### **Hanwella Water Supply Project**

This is an augmentation project which intends to serve 20,000 people in Hanwella area. Water for this scheme is from Labugama - Kalatuwawa WTPs. Total cost estimate is Rs. 47 million. It is proposed to augment the existing water supply scheme to expand the distribution net work. Total length of new distribution is 15 km out of which 9 km had been completed except along RDA roads. The physical and financial progress at the end of 2013 were 100% and 101% respectively. Rs. 29 million is required to complete the rest of the work which is the major constraint for the project.

#### **Northern Province**

##### **Nadunkerny Water Supply Project**

The Objective of this plan is to provide water supply facilities to the resettled people in Nadunkerny area in Vavuniya district. The capacity of this scheme is 400 cu.m/day. 5,000 beneficiaries are there in this scheme from eight GNDs. Nadunkerny Water Supply Project was commenced on 2009 and is now completed. The total cost estimate of the project is Rs. 176 million.

##### **Vidathalathivu Water Supply Project**

The Objective of this plan is to provide water supply facilities to the resettled people in Vidathalathivu area in Manthai West DS division, Mannar district. The capacity of this scheme is 500 cu.m/day. 8,500 beneficiaries are there in this scheme from five GNDs. Vidathalathivu Water Supply Project was commenced on 2009 and it has been completed now. The total cost estimate of the project is Rs. 204 million.

##### **Thevanpidy Water Supply Project**

The Objective of this plan is to provide water supply facilities to the resettled people in Thevanpidy area in Manthai West DS division, Mannar district. The capacity of this scheme is 440 cu.m/day. 2,900 beneficiaries are there in this scheme from three GNDs. Thevanpidy Water Supply Project was commenced on 2009 and it has been completed. The total cost estimate of the project is Rs. 168 million.

##### **Adampan Water Supply Project**

The Objective of this plan is to provide water supply facilities to the resettled people in Adampan area in Manthai West DS division, Mannar district. The capacity of this scheme is 796 cu.m/day. 5,860 beneficiaries are there in this scheme from eight GNDs. Adampan Water Supply Project was commenced on 2009 and it has been completed now. The total cost estimate of the project is Rs. 296 million.

##### **Valvattithurai Water Supply Project**

The Objective of this plan is to provide water supply facilities to the resettled people in Valvattithurai area in Point Pedro DS division, Jaffna district. The capacity of this scheme is 2,000 cu.m/day. 10,000 beneficiaries are there in this scheme from nine GNDs. Valvattithurai Water Supply Project was commenced on 2009 and it has been completed now. The total cost estimate of the project is Rs. 249 million.

##### **Maruthankerny Water Supply Project**

The Objective of this plan is to provide water supply facilities to the resettled people in Maruthankerny area in Maruthankerny DS division, Jaffna district. The capacity of this scheme is 61 cu.m/day. 1,500 beneficiaries are there in this scheme from three GNDs. Maruthankerny Water Supply Project was commenced on 2009 and the physical works are almost completed. The total cost estimate of the project is Rs. 26 million.

##### **Pandiyankulam Water Supply Project**

The Objective of this plan is to provide water supply facilities to the resettled people in Pandiyankulam area in Manthai East DS division in Mullaithivu district. The capacity of this scheme is 316 cu.m/day. 2,260 beneficiaries are there in this scheme from five GNDs. Pandiyankulam Water Supply Project was commenced on 2009 and the physical works are almost completed. The total cost estimate of the project is Rs. 199 million.

##### **Mallavi Water Supply Project**

The Objective of this proposal is to provide water supply facilities to the resettled people in Mallavi area in Thunukkai DS division in Mullaithivu district. The capacity of this scheme is 633 cu.m/day. 4,500 beneficiaries are there in this scheme from five GNDs. Mallavi Water Supply Project was commenced on 2009 and the physical works are almost completed. The total cost estimate of the project is Rs. 192 million.

##### **Oddusuddan Water Supply Project**

The Objective of this plan is to provide water supply facilities to the resettled people in Oddusuddan area in Manthai East DS division in Mullaithivu district. 10,700 beneficiaries are there in this scheme from 14 GNDs. Oddusuddan Water Supply Project was commenced on 2009 and the physical works are almost completed. The total cost estimate of the project is Rs. 92 million.

## **Projects to Commence Physical Works in 2014**

### **Implementation of Badulla, Haliela and Ella Intergrated Water Supply Project**

The main objective of the project is to cater for the need of safe water supply facilities to Badulla, Haliela and Demodara demand centers. This is to fulfill the current and future needs of pipe born water supply facilities to the beneficiaries in the area and enhance their health and living standards. The project duration is 42 months and the total estimated cost of the project is USD 74,160,000 This project is funded by United States of America and GOSL. About 15,000 families in the design horizon in Badulla, Hali-ela and Ella Divisional Secretariat Divisions will be benefited by this project.

### **Implementation of Mahiyanganaya Water Supply Scheme**

The main objective of the project is to cater the increasing demand in the Mahiyanganaya town and in the suburb areas. This is to fulfill the current and future needs of pipe borne water supply facilities of

the beneficiaries in the area and enhance their health and living standards. The project period will be 2 years and the total estimated cost is Euro 10,404,953 This project is funded by Unicredit Bank, Austria AG and GOSL. About 50,000 people within the project area will be benefited by this project

### **Greater Ratnapura Integrated Water Supply Project - Phase I (Spanish)**

This phase will improve the services presently provided to the existing consumers as well as extending the supply to new areas. About 160,000 people in Ratnapura, Kuruwita and suburban areas will be benefited in 2025. Main components of this phase are 13,000 cu.m./day capacity WTP, intake at Kuru Ganga at Kuruwita, transmission and part of the distribution. The existing WTP will continue to serve the present consumers at 6,500 cu.m./day. The TCE is Rs. 9,928 million. Commercial contract agreement was signed and loan agreement is to be signed.

## **Projects in Pipeline**

### **Greater Anuradhapura North Phase I Water Supply Project**

The served area of the project includes 10 Divisional Secretary areas (Mihinthalaya, Kahatagasdigiliya, Horowpothana, Kebithigollewa, Padaviya, Mahawilachchiya and Nochchiyagama in Anuradhapura District, Welioya in Mulathivu District and Padavi-Siripura and Gomarankadawala in Trincomalee District.) 97,000 cu.m/day of water will be obtained from Wahalkada, Mahawilachchiya and Mahakanadarawa irrigation tanks. There are more than 1,000 km of distribution mains, 300 km of transmission mains and the benefitted population will be around 350,000. This project will be carried out with Australian financing assistance and will be a great relief to the people living in the Chronic Kidney Disease affected areas.

### **Greater Matale Water Supply Scheme**

The pipe borne drinking water supply coverage in the Matale district is only 35% and outbreak of water borne diseases such as Cholera had become a common occurrence. The quantity and specially the quality of drinking water have always been a major concern and a continuous issue for a long period in the Matale district. The present demand amounts to 55,000 cu.m/day against the total production capacity of 22,500 cu.m/day. This makes provision of new domestic and commercial water connections impossible.

The areas covered by this project are Ukuwela, Matale, Udathenna, Yatawatta, Pallepola and Raththota. About 410,000 people living around these areas will be benefited by this project. The TCE for this project is Rs. 32,000 million. This project will be carried out with French Financing Assistance.

### **Polgahawela Pothuhera Alawwa Intergrated Water Supply Project**

Existing Polgahawela and Alawwa Water Supply Schemes are operated at its maximum capacity, however caters only 33% of the present demand. Large numbers of residents are registered in waiting lists for new water connections. Therefore, it is proposed to integrate these two schemes and improve as one scheme. This Integrated proposal meets the 29,000 cu.m/day demand and will be benefited to a population of 162,725 in Polgahawela, Alawwa, Weerabugedara (part) and Kurunegala (part), in the year 2035. Further it will ensure a very reliable water supply to export processing zone at Polgahawela which will be an encouragement for the prospective investors. The project has been proposed to be implemented with Indian financing assistance.

### **Aluthgama, Matugama & Agalawatta Intergrated Water Supply Project**

This project has been formulated to avoid the salinity problem of the integrated Kalutara WSS, which results saline water to consumers during dry parts of the year, to address the short supply hours & low pressures in the existing distribution system with about 145,000 beneficiaries and to provide new water supply to Mathugama, Aluthgama, Neboda areas benefitting about 110,000 people.

Since the scope of the project was too large, due consideration was given to meet the urgent requirement & the project was divided into two stages as stage I & II. The estimated cost of Stage I is Rs. 22,820 million which has been planned to implement with Indian financial assistance.

## **Planning and Design**

The need for a new water supply project or augmentation of an existing water supply scheme is first realized by the officers in charge of the water supply schemes. Mega projects planned are also subjected to a similar need assessment criteria. Accordingly, proposals for WSSs are initiated in RSCs for the estimated demand for the drinking water. A prefeasibility study will be carried out to ascertain the financial and technical viability of the proposed project. Then a preliminary project proposal is prepared and forwarded to the Project Appraisal Committee (PAC) for approval.

New projects are ranked province and island wise yearly, based on selected criteria for sector planning purposes and the prioritization is used for approvals, funding inquires and sequence of implementation. Design and feasibility studies of major projects that are to be implemented are carried out by the Planning and Designs Section of the Head Office in consultation with the respective RSCs. This section is specifically in charge of reviewing the designs related to projects being implemented using foreign funds, while carrying out detailed designs of selected foreign and GOSL funded projects.

The following paragraphs describe the summary of such activities.

### **Planning Works carried out during 2013**

The Planning & Designs Section has carried out the planning work of following Projects;

- Processing the prefeasibility report of Gawarammana – Bogahakumbura Integrated Water Supply Project located in Badulla District. Welimada DSD in Badulla District is affected by water shortage during dry spells in every year. About 30,000 people will be benefitted from this project in the 20 year design horizon period which covers 17 GNDs.
- Planning works of Serunuwara Water Supply Project.
- Preparation of the proposal for water quality improvement at the Kirinda Water Supply Scheme.
- Preparation of RFP document for Anuradapura North Water Supply Project–Phase I, Planning of Maha Oya Water Supply Scheme-Stage II (under JICA Funded Eastern Province WSS) & Preparation of Feasibility Report on Proposed Mulliativu WSS.



*Proposed Source of Anuradhapura North Phase I (Mahakanadarawa)*

- Feasibility studies of Gampaha, Aththanagalla and Minuwangoda Integrated Water Supply Project.
- Prefeasibility studies of Katana Water Supply Project
- Prefeasibility studies of Kelani Right Bank Project – Stage II and Construction of Wee Oya Reservoir
- Feasibility study of Towns East of Colombo District Water Supply Project under ADB/AFD funding.
- Preparation of 04 RFP documents for Towns East of Colombo District Water Supply Project under local bank funding
- Coordination with other stake holders of Kelani river upstream reservoir
- Prefeasibility Study for Kalutara ,Bandargama, Horana and Ingiriya Integrated Water Supply Project has been completed and submitted for NPD/BOARD/PAC approvals.
- Preparation of RFP document for Ingiriya and Handapangoda Water Supply Project is in progress.

### **Design Review Works carried out during 2013**

- Review of structural, hydraulic, and process designs of Kelani Right Bank Water Supply Project
- Review of structural and hydraulic designs of Salinity Barrier for Kelani River
- Rehabilitation of Labugama Water Treatment Plant
- Rehabilitation of Kalatuwawa Water Treatment Plant
- Review of Design works on Kalatuwawa and Labugama Dams under Dam Safety & Water Resources Planning Project
- Study the proposals submitted for the Western Province Master plan Study.

**The Southern/Eastern Sub Section of Planning & Designs Section, has carried out the Design Review of Structural, Hydraulic, Distribution and Transmission systems and Process Designs of following Projects;**

- Ruhunupura Water Supply Project which includes 35,000 cu.m/day capacity Intake, 17,500 cu.m/day capacity Water Treatment Plant, 3 Ground Reservoirs (3,000 cu.m & 2 of 1000 cu.m) with Pump Houses, 3 Water Towers (2,000 cu.m), Transmission Main (40 Km), Distribution system (250 km) and M&E works. It is proposed to supply water for industrial demand of Port, Airport, BOI zones and Port of Hambantota and Sooriyawewa DS divisions.



Ruhunupura Water Supply Project - Construction of Control Gate



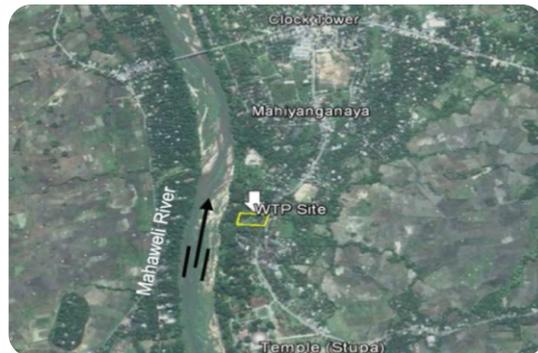
Construction of Mahaweli Water Tower (2,000 cu.m)-Ruhunupura

- Greater Ratnapura Water Supply Project which includes 13,000 cu.m/day capacity Water Treatment Plant, 2,500 cu.m Ground Reservoir, Raw Water Transmission main (3 km), Treated Water Transmission main (4 km), Office Building for RSC (Sab) and Quarters, etc. The proposed coverage area includes Ratnapura, Kuruwita and Pelmadulla DSDs.
- Design review of integrated water supply scheme for un-served areas of Ampara (Phase III) project which includes intake (35,000 cu.m/day), Treatment Plant (27,000 cu.m/day), Transmission Main (117 km), 4 ground sumps (2250 cu.m, 1000 cu.m, & 2 of 1600 cu.m) and M&E works. It is proposed to supply water for Domestic, Commercial and industrial purposes of Damana, Uhana, Navithanvoli, Madulla and Ampara DSDs.



Himadurawa Treatment Plant & Intake

- Augmentation of Mahiyanganaya Water Supply Project includes Intake (9,000 m<sup>3</sup>/d), Treatment Plant (6,500 m<sup>3</sup>/d), Ground Reservoir (600 m<sup>3</sup>), Elevated Water Tower (500 m<sup>3</sup>), Transmission Main (315 mm HDPE 17.2 km) and M&E works, Quarters and Office Buildings. Mahiyanganaya WSP is fed from Mahaweli River and it supplies drinking water to Mahiyanganaya and Rideemaliyadda DSDs including hospitals and Mahiyanganaya Raja Maha Viharaya.



Mahiyanganaya Water Supply Project - Plan



Balangoda Water Supply Scheme - Proposed Treatment Plant Site

- Design review of Kolonna – Balangoda Water Supply Project which includes two Water Supply Schemes : Kolonna (7,000 cu.m/day capacity intake, 7,000 cu.m/day capacity treatment plant, two ground reservoirs of 750 cu.m & 1000 cu.m), 31 km of transmission mains, distribution system and supply and installation of M&E equipment) and Balangoda (7,000 cu.m/day capacity intake, 7,000 cu.m/day capacity treatment plant, two Ground Reservoirs of 1500 cu.m & 1000 cu.m, 3 km of transmission mains,

Distribution system and supply & installation of M&E Equipment)

- Review of distribution models of Greater Dambulla Water Supply Project & Design and build procurement document of intake, raw water main & water treatment plant of Jaffna Kilinochchi WSP
- Design review of Mechanical & Electrical system of Water Supply Scheme for the un-served areas of Ampara district Phase III project
- Design Review of Network System of Jaffna Kilinochchi Water Supply & Sanitation Project
- Design Review of Network System of Greater Ratnapura WSS
- Design Review of Water hammer system of Greater Ratnapura WSS

#### **Detailed Designs carried out during 2013:**

- Detailed Design for construction of five storied office building at Head office premises was carried out. The building consists of office area, auditorium, library, canteen and other service facilities. The total area of the building is 3,240 sq.m. Architectural design, structural design, service design, procurement works and other all related works for office building are in progress.
- Water supply to Diyagama Township Development including the Mahinda Rajapaksha International Sports Complex and utilizing Funds under Kalu Ganga WSP were carried out.
- Transmission extension to Katunayake International Airport and BOI, under BOI funds.
- Preparation of network model, designing of distribution & feeder mains for Towns East of Colombo District Water Supply Project- Package 01 contract under ADB/AFD Funding.
- Designing of 1,000mm diameter DI transmission main, 18,000cu.m capacity ground reservoir and other civil works for Towns East of Colombo District Water Supply Project- Package 02 contract under ADB/AFD Funding.
- Detailed designs, preparation of drawings, tender documents and Bill of Quantities of transmission mains, distribution mains, intakes and treatment plants for Uhana, Damana, Hingurana, Irakkamum, Deegawapiya, Pothuwil, Dehiattakandiya and MahaOya area under the JICA funded Eastern Province Water Supply Development Project.
- Detailed designs and preparation of drawings and tender document including bill of quantities for Koneshpuram & Dadayanthalawa Distribution System.
- Tenders are awarded for water towers : Bakkiella (1000 cu.m), Konewswapuram (1000 cu.m), Namal Oya (750 cu.m) Inginiyagala (750 cu.m), Central Camp (750 cu.m), Tottama (600 cu.m) and Construction works commenced.
- Detailed designs, preparation of drawings and tender document including Bill of Quantities and Rated BOQ for distribution systems of 115 km in Bakkiella, 220 km in Gonagolla, 155 km in Central Camp, 155 km Namal Oya, 104 km Ingiriya, 87 km in Thottama, 73 km in Himadurawa 55 km in Kalawanchikudy water supply schemes.
- Detailed designs, preparation of drawings, tender documents and Bill of Quantities of transmission mains, distribution mains, intakes and treatment plants for Eachchalampattu WSS under the Conflict Affected Regional Emergency Project.
- Preparation of Bill of Quantities, tender documents for distribution system Part II of Ruhunupura Water Supply Project.
- Detailed designs of Distribution system of Greater Ratnapura Water Supply Project.
- Detailed designs and preparation of drawings and tender document including Bill of Quantities for Kataragama Water Supply Scheme (Augmentation)
- Detailed designs for improvements of Ranna Water Supply Scheme
- Design of transmission pumping main, distribution system & 1500 cu.m tower for Maha Oya Water Supply Scheme-Stage II (under JICA Funded Eastern Province WSS).
- Designs carried out with respect to Mechanical and Electrical works during 2013.
- M&E Design and preparation of bid document for Solar sludge drying beds of Rathmalana Wastewater treatment plant
- M&E Design and preparation of bid document for Madu Water supply scheme
- M&E Design and preparation of bid document for Defence Head Quarters Wastewater Treatment Plant
- Design of pumping system and Preparation of BOQ and specification for Thamabagollawa Water Supply Scheme
- Designs are in progress of new PAC system, preparation of M&E specification, BOQ & Engineer's Estimate for Kattakaduwa WTP
- Preparation of M&E Document, Drawings, Engineer's Estimate for Karawanella Base Hospital Wastewater Disposal System

- M&E Design and preparation of bid document for Head Office Sewage Disposal System
- M&E Design and preparation of bid document for Echchalampattu WSS
- M&E Design and preparation of bid document to procure Electrically Driven Wet well type Submersible sewerage pumping sets & accessories for Stage II pump house at Jayawadanagama
- M&E Design and preparation of bid document for Central Air Condition System for New multi-storied Building At Head Office
- M&E Design and preparation of bid document for Mahinda Rajapaksha Sport Complex
- M&E Design and preparation of bid document for Katharagama Water Supply Scheme
- M&E Design and preparation of bid document for Maharagama Cancer Institute
- M&E Design and preparation of bid document for Air condition System & Accessories for Planning and Design Section of Head Office
- M&E Design and preparation of bid document for Eastern Province Water Supply Development Project

#### **Documentation Works Carried out during 2013**

The work includes the preparation of 6 new Standard Bidding Documents, 5 Other Bidding Documents, Revisions of 38 Standard Bidding Documents and preparation of re-categorized comprehensive sets of Specifications, preparation of a Pre-Qualification Document, Drafting 5 Technical Circulars and a Board Paper in the following areas. M&E designs and preparation of bidding document for Point-Padro Water Supply Project also carried out.

- Laying of Pipes
- Design and Built Local Contracts
- Cargo Clearance
- Request for Proposals
- Local Bank Funded Projects
- Aluminium Partitions
- Manhole Covers & Surface Boxes etc.

In Addition to the above activities the documentation sub section also functioned as the Secretariat for the Standard Bidding Document Review Committee which was re-established in year 2008 to review the Bidding Documents and to resolve the procurement issues in National Water Supply & Drainage Board. The Standard Bidding Document Review Committee held 15 meetings including 3 Special Meetings during the year.

Further the Documentation Sub Sections has been acting

as the secretariat for the monthly progress review meetings conducted by the P&D Section.

#### **Design Manual Updating Works**

During the year, reviewing of the D2 Manual was partly completed. Amendments to the PI Manual was completed and the comments to the draft safety manual has been incorporated and to be reviewed by the committee. Also the comments obtained for the handing over manual has been incorporated and to be reviewed by the committee.

#### **Quantity Surveying Works**

The Quantities work includes the preparation of BOQ of all the Design Works carried out by the P&D Section of Head office, Preparation of Engineer's Estimates, Rate Book, Water & Sewerage work studies to prepare work norms for pricing of work items and reviewing of Engineer's Estimates prepared by Projects.

During year 2013 this Sub Section has prepared 157 BOQs, 145 Engineer's Estimates, scrutinizing of 39 Consultant prepared BOQs, scrutinizing of 2 variation orders and cost proposals while preparing, compiling and distribution of Annual Rate Book for Water and Annual Rate Book for Sewerage.

#### **Outlook of the Planning and Design works for Wastewater Disposal Systems in 2013**

The year 2013 could be marked as a significant year in terms of the planning and design works aimed for starting numbers of wastewater disposal systems in several parts of the country. The areas of works starts from Kataragama Sacred City, Hambantota New Urban City, Galle, Sri Jaywardhanapura-Kotte Area, Mahagama-Borelasgamauwa, Negambo, Chillaw, Puttalam and Kattankudy while extending technical support for the design inputs required for the on-going sewerage projects in Ratmalana-Moratuwa and JaEla-Ekala. Planning and design works for Wastewater Disposal System for training centre at Dambulla, belong to the Sri Lanka Bureau of Foreign Employment and improvement of Global Partnership Out-based Aid Project in various locations of Colombo and suburbs were successfully carried out in year 2013.

RFPs regarding Several Wastewater Disposal Systems in the above key Towns were issued as tender documents and offers for the proposals were received. The evaluation of technical and financial offers was conducted during the year 2013. Further, the P&D-Sewerage Section has contributed for the development wastewater disposal facilities for major institutions such

as Defense Head Quarters, Maharagama Cancer Institute etc.

### **Scope of P&D Works done for Major Projects in Pipe line during 2013**

The offers received for the RFP on Sri Jayawardhanepura Kotte Wastewater System were evaluated with several rounds of meeting between Project Committee (PC) and Standing Cabinet Appointed Procurement Committee (SCAPC). Scope of Micro-Tunneling was incorporated to the project items in Sri Jayawardhanepura Kotte Project for the first Time in a Sewerage Project. Cabinet approval of the project is pending and Tender was finalized. EIA and land acquisition to proceed. NPD approval was sought for revised cost estimate.

In Kurunegala Water and Wastewater Project the agreement was signed and contract was commenced. Investigation and detailed designs are in progress. The feasibility study and the revision of cost estimation are in progress for Wastewater Disposal Project for Ratmalana/ Moratuwa and JaEla/Ekala Phase II, PAC, Board and NPD approval to be obtained. The CEA clearance is available for the entire project which was obtained in project preparation in Stage I. Draft project proposal for Phase II was submitted for JICA funding.

The tender was awarded to M/s STRABAG for the implementation of upgrading the wastewater collection and disposal system in Kataragama Sacred City Area and IEE/study to be commenced with University of Ruhuna.

Also, RFP for providing a Wastewater collection and disposal system for Kattankudy was called and the offers are being evaluated. Cabinet approval is available for the original project concept. Revised scope and TEC was approved by the Board and submitted for clearance for NPD. Tender for construction of WWDS as a design and build contract was finalized. Cabinet approval for the award of the contract is pending.

The RFP document for Galle Wastewater Disposal and Collection was prepared during the year 2013 and subsequently the document was modified due to change in the technical Scope of the project after analyzing the results of mathematical modeling of sea out fall.

The Environmental Impact Assessment (EIA) of the Galle & Negombo Wastewater Disposal Projects was awarded to the EML Consultants and the Field Works and

investigation were completed. The Draft EIA Study Report for Galle and Negombo has been almost completed. Cabinet approval to be sought. Draft EIA Report was received. RFP is amended to incorporate a treatment plant and issued to the bidders. Bids received in the year 2013. TEC is revised and NPD clearance is sought for the revised scope and the TEC by incorporating WWTP instead of long sea outfall.

For Maharagama-Boralasgamuwa, Chilaw, Puttalam, Wastewater Disposal Projects estimates were revised and second revised offer by M/s CCOEC-GSE is being evaluated. Feasibility study was completed and Board approval obtained for expansion of piped sewerage coverage in Dehiwala/Mt. Lavinia. Feasibility study is underway for Gampaha wastewater disposal Project. Scoping meetings were held and field visit with CEA, UDA and other relevant agencies were completed. The EIA Study of Hambantota Wastewater Disposal Project is in progress. Land acquisition is also underway. Loan negotiation and cabinet approval are pending.

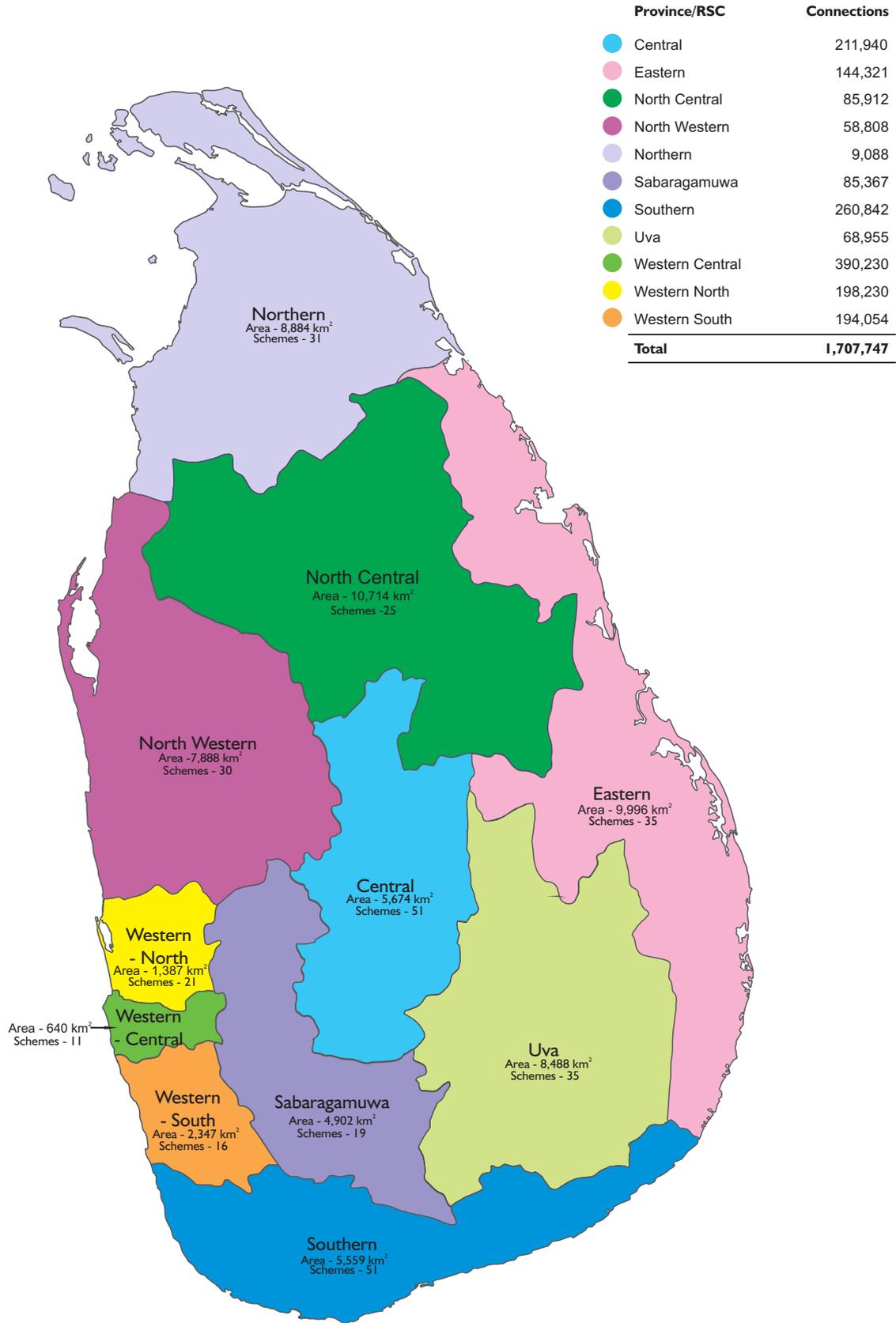
In Negombo Wastewater Disposal System the draft EIA report was received. NPD approval was sought for revised cost estimate. The Preliminary technical proposal developed for Extension of Piped Sewerage Coverage for Dehiwala - Mt. Lavinia Municipal Council Area was revised. Designs on buildings for quarters at Soysapura were completed.

All Engineering estimates of major projects were updated to reflect the real physical need of all the projects.

### **Design Review Work carried out for the On-going Wastewater projects during 2013**

The P&D section involved in reviewing detailed designs and provided specialized technical assistance for three ongoing foreign funded projects, namely Wastewater Disposal Project for Ratmalana/vMoratuwa, Ja-ela/ Ekala Phase I, Southern Catchment and Kandy City Wastewater Disposal Project Sanitization Component of Dry Zone ADB 5th Project.

# Regional Support Centres



## REGIONAL SUPPORT CENTRES

New projects are originated from the 11 Regional Support Centers of the NWSDB. As representatives of the Project Review Committee, the staff of RSCs' closely coordinate the planning and regulatory procedures of new projects. Also, the existing WSSs and Sewerage Schemes are Operated and Maintained by them. Infrastructure Development, Reduction of Non Revenue Water, Energy Management and Institutional Development works and performance in water supply and sanitation sector of the RSCs have been included in appropriate sections. Some other important information which are not included in aforementioned sections are summarized below.

### Western - Central

Some special events were taken place at the Western Central RSC during the year 2013. World Water Day events, alms giving to Maharagama Cancer Hospital, disconnection programmes, bowser supply for CHOGM, conducting mobile connection centers and attending district development committee meetings for water supply were some of the special events.

NRW reduction activities such as day to day leak repairs, night surveys, defective meter replacement, illegal connection arresting, zero bill inspections, pipe replacements, fixing bulk meters, replacing valves, Collection of information on defects and preparation of NRW reduction detailed report were carried out during the year 2013.

Many energy saving activities also carried out in the year 2013. Reduction of pump operating hours, fixing floater switchers, valve balancing, changing the pumping hours, installation of capacitor bank, fixing VSD balance and suction line enlargement were some of the energy saving activities.

Implementation of inventory management systems, requesting the materials to minimum requirements, transferring excess materials, transferring larger diameter pipes and valves to main stores, monitoring of stocks and stock verifications were some of the stores management activities taken place in the year 2013.

Awareness programmes to reduce NRW, school programmes and public water convention programmes were carried out in the RSC and 716 new water connections were provided in 2013. Pipeline extensions were done in Kotte and Maharagama areas which were 23 km and 12 km respectively.

### Western - South

The Western-South RSC consists of Dehiwala, Ratmalana and Moratuwa DS divisions and Kalutara district. Many special events were taken place in the RSC in 2013. Special programmes for attitude changing and productivity, blood donation camp at the RSC and Christmas celebrations were some of the special events.

Many NRW reduction activities were carried out and the NRW was reduced by 2.6% in Kalutara region during the year 2013. NRW was increased by 3% in Dehiwala and Panadura due to road rehabilitation projects and waste water disposal projects.

Water quality surveillance and water security activities were carried out in several areas. Two RWS schemes were completed and 23 RWS schemes are ongoing in the RSC.

Furthermore pipeline extensions for a total of 100 km were completed which consists of 34 km in Kalutara region, 60 km in Panadura- Horana region and 6 km in Dehiwala region. Many rechargeable and rehabilitation activities also carried out in all the regions throughout the year.



Supply and Laying of 4.5 km, 600 mm diameter DI/PE Pipe line from Maggona to Beruwala

### Western - North

Biyagama OIC office was opened at Malwana on December 2013. Pipe replacement, defective meter replacement and inspection, Repairing of reported leaks in distribution systems and installation of flow meters, Toning valves and bulk meters, were some of the NRW reduction activities carried out in 2013.

Water quality issues at Rathupaswala was solved by organizing crash programme to supply water to the area. Many energy saving activities were carried out throughout the year such as replacement of bulbs, installation of backwash water recovery pumps, power factor correction and pumping main replacement.

Purchasing structural design packages, pipe laying works, sanitarial service improvements at the RSC, leak repairs and construction of stores were some of the institutional development activities. Regular water quality checks were carried out from intakes to consumer points. Repairs were done at possible contaminated places.

Rural water supply and sanitation activities such as repairing pumps, improving the sources, assistance for CBOs arrangement of low cost chlorinator systems and construction of 50 sanitation facilities were completed. Pipeline extensions were carried out for a total length of 216 km.

Kirindiwela WSS, Nittambuwa – Veyangoda WSS were almost completed and Katunayake – Seeduwa WSS, Rathupaswala WSS and Udampitigama (Stage I) WSS were in progress. A total number of 20,456 new connections were given in 2013. The total value of the work done in RSC (WN) was Rs. 79 million.



Laying of uPVC pipes along Rathupaswala - Nedungamuva road



Udampitigama Opening Ceremon

**Southern**

Many special events were taken place during the year 2013 in the RSC such as health programme, “Positive thinking” awareness programme, dental clinic for staff, field trips, plantation programme, cricket tournaments and some awareness programmes for the school children. Relocating the water meters and sealing the defective meters, improvements to new connection practices, NRW measurement with adequate accuracy, reduction of leakage, distribution improvements, ensuring the quality of materials used and disconnecting illegal connections were some of the NRW reduction

activities carried out throughout the year.

Furthermore, many energy saving activities were also carried out during the year 2013. Replacement of Gabadaweediya and Brownhill pumps in Uyanwatta pumping station, replacement of Baddegama tower high lift pumps, replacement of Ambala /Kudaheela pumps with efficient pumps and replacement of Beralihela booster pumps were some of the examples for energy saving activities.

Water Quality surveillance, water security activities and water safety plans were carried out in Wakamulla WSS, Tangalle WSS, Kirinda – Puhulwella WSS, Matara group WSS, and Pitigala WSS. Further more pipeline extensions were carried out for a total of 47 km which includes 16 km in Galle region, 9km in Matara region and 22 km in Hambantota region.

Hakmana WSS, Pitabeddara WSS, Bonavistakanda WSS, Gonapinuwala WSS and Kataragama WSS are some of the projects under construction stage in the district.



Kataragama WSS - 225 cu.m Capacity Water Tower

**North Central**

Many special events were taken place in the North Central RSC. Second International conference and exhibition on Community and Water Services, distribution of water through bowser supply in kidney disease prone areas, fixing rainwater harvesting tanks in several places, fixing RO plants, installation of package water treatment plant under Thisawewa WSS and well screening programmes were some of the special events in the year 2013 in the North Central RSC.

Unacceptable water quality was the main issue in the areas and under remedial actions, improvements will be done under the water supply projects under the board funds.

NRW reduction activities such as replacing 12 bulk meters, Installing 08 new Bulk meters, 23 valve replacements, 43 new valve installations, Replacing 4,536 defective meters, detection and disconnecting illegal connections and leak repairs in transmission and distribution mains were carried out throughout the year. Furthermore some energy saving activities also were taken place in the RSC.

Institutional Development Activities such as training programmes on unicodes, RO plants, stores management, AutoCAD, Firefighting, etc. and other productivity improvement activities such as Attitude Development programme, English courses for staff, etc. were carried out during the year. Furthermore many rural water supply and sanitation activities also were implemented. Preparation of simple chlorinators, registration of 90 CBOs in National Community Water Trust, water quality surveillance programme, training programmes for operators and caretakers, flushing and replacing of pumps, participation of CBO meetings and implementing new water sources were some of the rural water supply and sanitation activities carried out.

Pipeline extensions were done for a total of 46 km in the Anuradhapura district which includes Anuradhapura North WSS (05 km), Kekirawa WSS (03 km), Ipalogama Ranaviru Village WSS (26 km) and Wijayapura WSS (12km).



Minneriya /Hingurakgoda Water Supply Scheme

### North Western

Galgamuwa WSS and Divulgane WSS were commissioned in 2013. A new section for “Sector Planning” was opened in the RSC. There were some issues such as water quality problem in Kurunagala district and Puttalam district and water quantity problem in Anamaduwa, Puttalam, Chilaw, Nattandiy and Udappurwa WSS. A low cost full treatment plant was constructed in Galgamuwa, Fabrication of package treatment plant was done in Polgahawela and the water shortage areas were included in the ADB 5th project to ensure the water availability.

NRW reduction activities were carried out in the regions and the average NRW obtained in the year was 14% in the RSC. Pump replacements, were done in Kurunagala, Nelumpokuna, Dankotuwa and Galgamuwa to save the energy. Centers on “Attitude changing”, training programmes for minor staff, health camp for staff, etc. were some of the activities conducted in the RSC.

Water safety plans for Alawwa WSS, Nelumpokuna WSS, Madurankuliya CBO and Dirijayapura – Panliyaddawatta CBO were completed and new water safety plans were initiated at Dankotuwa and Wariyapola.

Construction of Dambagirigama, Galpihilla, Madithiyawa, Kotakanda and Samanalthenna RWSS were completed. Assistance to RWS trust activities also were carried out such as supply and installation of pumps (14 Nos.) and Chlorinators (08 Nos.) for CBOs. Construction of Rain Water Harvesting Tanks for Mahawa Polpithigama area was ended with installation of 250 Nos. of tanks.

Pipeline extensions of 93 km of which 73. km in Kurunagala and 20 km in Puttalam districts were carried out.

Under the capital funded projects 16 projects were completed, 03 projects were in progress and 05 projects were awarded under Mahawa – Nikaweratiya water supply scheme. 10, 16 and 5 Nos. of projects were completed under Ibbagamuwa, Dambadeniya and Divulgane water supply schemes respectively.

Under the North Western RSC two projects were approved by the cabinet. Four received NPD clearance and eleven projects obtained Board Approval.

### Central

The “World Water Day 2013” celebrations were organized at Plant Genetic Resource Center at Peradeniya and a “Walk” also was held with the participation of all relevant stake holders, school children and CBO members. An internal water supply scheme to Dalada Maligawa was constructed and handed over by Hon. Minister Mr. Dinesh Gunawardena. Some CKDu Mitigation programmes were carried out throughout the year in the district. Customer mobile service arrangements were organized in the year 2013 to resolve customer complaints such as bill issues, new connections, etc.

Damage to the distribution pipelines due to road widening works, shifting the pipelines and damage to transmission line due to landslide near Giraduwa were some of the issues in 2013. Water supply of Naula area had been interrupted due to the lowering of water level of Nalanda reservoir for 3 days and water bowsers were used to rectify the situation.

Leak detection works, special investigations, leakage database preparations, awareness programmes on NRW, Water connection surveys, Zoning works, Bulk meter data collection, Distribution improvement, Pressure management in the distribution system and updating the distribution data into GIS were some of the NRW reduction activities carried out throughout the year. Some energy saving activities also took place such as replacing the existing fluorescent lamps with CFL/ LED bulbs and H/L replacements in some areas.

Furthermore many Rural Water Supply activities were carried out during this year. Assembling and fixing of chlorinators at CBO schemes, collecting data for the Data Base of CBOs in the Central Province, actions for the complaints by CBOs, Minipe-Udaththawa CBO

intake improvement was completed and 16 pumps were repaired in Rural Water Supply Schemes.

Pipeline extensions were taken place in Kundasale, Menikhinna, Hanguranketha, Udu /Yatinuwara, Harispaththuwa, Akurana, Polgolla, Poojapitiya/Hedeniya and Galagedara areas for a total length of 110km.

Furthermore activities such as pipe laying in Ginigathhena area, retaining wall at Ampitiya, construction of Ferro Cement tank, meter mounting units, topographical surveying, rehabilitation of regional laboratory, pipe work at Udatenna, rehabilitation of sludge drying beds at Naula, laying of distribution mains at Polgolla, pipe laying along A9 road and DI supply at Galagedara and Akurana were 100% completed and some more activities are about to be completed in Kandy North, South, East and Matale regions.

### **Sabaragamuwa**

Many special events were taken place in the Kegalle and Ratnapura regions of Sabaragamuwa RSC. World Water Day, mobile services at several places, Cricket tournament, Annual trips and get togethers were some of the special events.

Many NRW reduction activities were carried out in the RSC such as distribution improvements, changing the damaged valves, construction of new valve chambers, construction of chlorinator house, pipe replacements, connection transferring and construction of new overhead tanks. Furthermore several energy saving activities were also carried out. Replacing the normal bulbs with CFL, replacing the old pumps with new pumps, controlling of pumps operation hours to save the electricity bills and preventive maintenance for all pump stations in Ratnapura region are some of the energy saving activities.

Institutional development activities such as construction of pipe stores at Balangoda, Quarters and pump repairs at Ratnapura/ Eheliyagoda, curtaining of site offices, fencing works in some sites, office partition works and construction of chlorinator house were also carried out in the year 2013.

Productivity improvement activities were also taken place in the regions which includes "5S" programmes in the regional offices. Donation of food and clothes to orphanages and Dansala in Wesak Poya days were also conducted. During the year 2013 several RWS schemes were technically supported as per the request. Those RWS schemes were Nil Randiya, Diyawinna, Napawala Mahadeloya, Maragahahena, Nakanadala Sunila Diya, Kuruwitta small town WSS, Walankade, Kuttigala Ekamutu, Suhada, Sisila and Puwakgahawatta, etc.

Furthermore, the total pipeline extension work was 43 km which includes Ratnapura (11 km) and kegalle (32 km) regions. Data collection from CBO schemes in the Ratnapura region, Tree plantation programme ("Ruk

Ropana") in Katugas ella catchment, Water quality testing in CBO schemes and mobile services organizations were some of the other activities carried out in the year 2013.



Udawalawa WSS

### **Uva**

A medical exhibition of Mobile services, taking over the water supply schemes, tree plantation and commissioning of Ambagasdowa Treatment Plant commissioning of Ambagasdowa water treatment plant, Ohiya-Welimada transmission main and water treatment plant, Badal Kumbure-Alupotha WSS were some of the special events taken place in 2013. During the drought season of 2013, some water supply schemes were affected and immediate arrangements were carried out to supply water such as bowser water supply, plastic tank distribution, zonal water supply, etc. Water quality problems also occurred in some schemes and remedial actions were taken to remove blocks at intakes to reduce turbidity, to install chlorinators in small WSS and to fabricate and install two package treatment plants.

Furthermore, energy saving activities also carried out. Ellathota pump replacement, reducing electricity cost by changing the tariff system, implementation of preventive maintenance programme at pumping stations and avoiding pumping during peak hours were some of the energy saving activities practiced during the year. Replacement of bundled pipes and relaying of old pipes were the NRW reduction activities conducted in the RSC.

The water quality improvement was assured by introducing package treatment plant at Okkampitiya and Haliela. Furthermore 12 training programmes were conducted including technical programmes (8), Non-technical programmes (4), computer training programmes (2) and productivity training programmes. The progress of the water safety plan was also satisfactory in 2013. Total of Rs. 650 million worth RWS projects have been formulated for Monaragala and Badulla districts and those projects at different stages in the process of receiving PAC approval through implementation. Those water supply schemes are Kiriibbanwewa left, Wila oya, Ruhunudanawwa extension, Muthukandia, Improvements of Okkampitiya, Gangodaarawa Budula, Block 3-Buttala, Siyambalanduwa Dugwell construction, Wellawaya,

Supplying low cost chlorinators to CBOs and Bibila, Bogoda, Makul Ella, Sihionamaligathanna, Galauda, Getahewapathana, Ketawela, Palgahathanna, Lunugala, Meeriyabedda, Udawela and Rahuppola in Monaragala and Badulla districts.

Pipeline extension works were carried out of 16 km in Bandarawela region and 35 km in Monaragala region. Safe drinking water was provided to the CKDu areas only for cooking and drinking purposes.



Opening of Rahuppola RWS Project

#### Northern



Rehabilitation of Velanai Pump House

Some NRW reduction activities were carried out throughout the year in Jaffna and Vavuniya region. Installation of meters for the areas which didn't have meters earlier, Bulk meter installation to measure the production capacities at Karainagar and Nainathivu, action against illegal connections and replacement of defective water meters were some of the NRW activities. Furthermore Energy saving activities such as changing pumping patterns, fixing new transformers to the pump houses were taken place.

The RSC (N) new office was opened in this Year. Drilling of 04 production wells were done and 02 were successful. Construction of public toilets and individual toilets were completed in Jaffna and Vavuniya areas under the rural water supply and sanitation activities.

Pipeline extension works were carried out in Arali, Kayts, velanai in Jaffna region and Thekkawata and Susaipuliyankulam in Vavuniya Region. Kayts pipe supply,

Madhu WSS, Nudunkerny WSS, Adampan WSS, Pandyankulam WSS, Mallavi WSS, Valvettithurai WSS Maruthankerny WSS, and Oddusudan WSS were completed and provision of connections was also started.

Upgrading the old staff quarters and construction of new staff quarters in Vavuniya, landscaping, roof works in the RSC building were some of the activities done under the Rehabilitation works.

#### Eastern

Dayata Kirula – 2013 programme was held in Ampara for 7 days. Awareness programmes to expedite new connections and NRW reduction programmes were held in some places. New SMS alert facilities to the customers were introduced during the year 2013. Shramadana programme at Kallady, plantation of trees, Mobile services at several places were some of the special events taken place at the RSC.

Raising of valve chambers due to RDA road widening projects, insufficient water to Kalmunai and Sainthamaruthu WSS, Water quality problem at Kallar WSS during dry season were some of the issues faced during 2013 and all the problems were solved.

NRW reduction activities such as pipe replacements, raising valve chambers, flushing and replacing the valves and usage of submersible pumps and vibrating rammer were carried out during the year. Energy auditing works, replacement of bulbs, replacement of energy WSS pumps, Improvement of power factor, usage of single pump instead of double pumps and minimization of operational costs were some of the energy saving activities carried out during the year 2013.

Training programmes were held for construction management at the RSC. sixty team building programmes were held in each region during 2013. Three and four RWS schemes in Batticaloa and four RWS schemes in Trincomalee were implemented.

Many rural water and sanitation activities also carried out in 2013. Construction of toilets, Exhibiting the RWS component in Dayata Kirula exhibition, CKD programmes, placing storage tanks, registration of schemes in water trust, replacement of raw water pumps were some of the activities conducted.

Pipeline extensions were done for a total of 84 km. Extension works at Ampara, Akkaraipattu, Batticaloa and Trincomalee regions were 6 km, 7 km, 43 km and 28 km respectively. Under the capital funded projects Kantale WSS, Dehiattakandiya WSS and Wanela WSS are in progress.

## ▶ **Report of the Audit and Management Committee**

“The Audit & Management Committee functions to extend its assistance to the Board of Management in terms of Public Finance Circular No. PF/PE/4 dated 11.01.2000.”

The Audit & Management Committee functions to extend its assistance to the Board of Management in terms of Public Finance Circular No. PF/PE/4 dated 11.01.2000. Initially the Committee was formed as per PF/PE/3 dated 19th November, 1999 with the concurrence of the Board of Management of NWSDB via Board Decision No.2965 (b) of Board Meeting No. 590.

The concise roles & responsibilities of the Committee are as follows;

- Review of Audit Programme
- Review of annual financial statements for compliance of accounting standards and ensure
- Review of Internal Audit Reports.
- Review of Auditor General Reports.
- Review of implementation of recommendations of the Committee on Public Enterprises (COPE).
- Make Recommendations on actions to be taken on shortcomings pointed out.
- Monitor actions based on the Recommendations of the committee
- Review and evaluate the internal control systems covering accounting, financial and operational aspects based on internal audit reports.
- Review matters pertaining to staff discipline, elimination of wasteful expenditure and corrupt practices with the objective of making the organization cost conscious.
- Review compliance of statutes, rules, regulations, Treasury circulars & directives.

During the year 2013, the Committee was consisted of the following members,

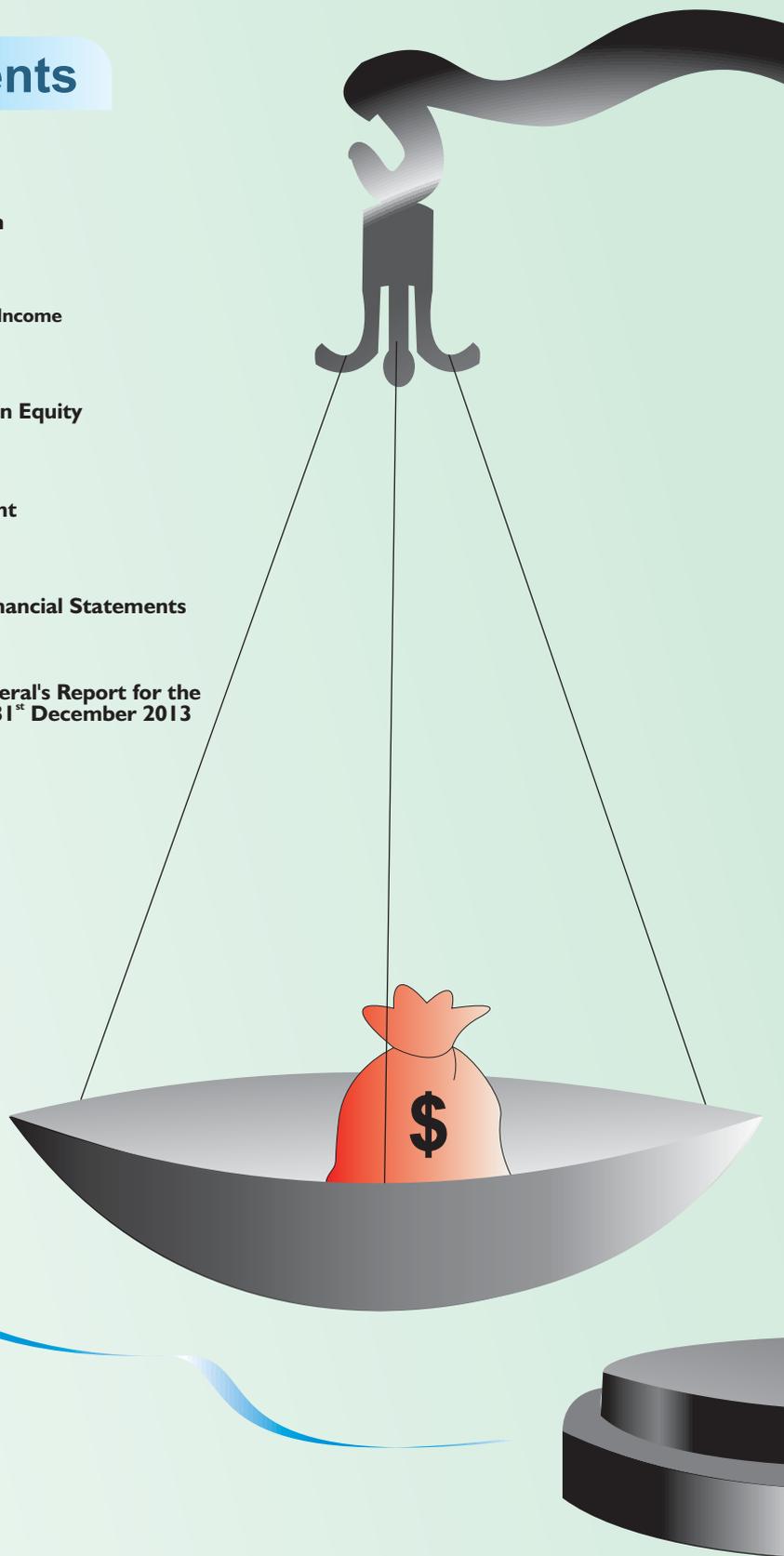
- |   |                                |
|---|--------------------------------|
| 01. Mr. A.K. Seneviratne<br>Board Member  | - Chairman<br>of the Committee |
| 02. Mr. K.D. Gamini Gunaratne<br>Vice Chairman                                      | - Member                       |
| 03. Mr. K.L.L. Premanath<br>General Manager<br>(Up to September 2013)               | - Member                       |
| 04. Mr. B. W. R. Balasuriya<br>General Manager<br>(With effect from September 2013) | - Member                       |
| 06. Mr. D. Thotawatte<br>DGM (Finance)  | - Member                       |
| 06. Mr. H. Ariyasena<br>DGM (HRM)<br>(Up to September 2013)                         | - Member                       |
| 07. Mr. K. G. Iddamalgoda<br>Addl. GM (HRM)<br>(With effect from September 2013)    | - Member                       |

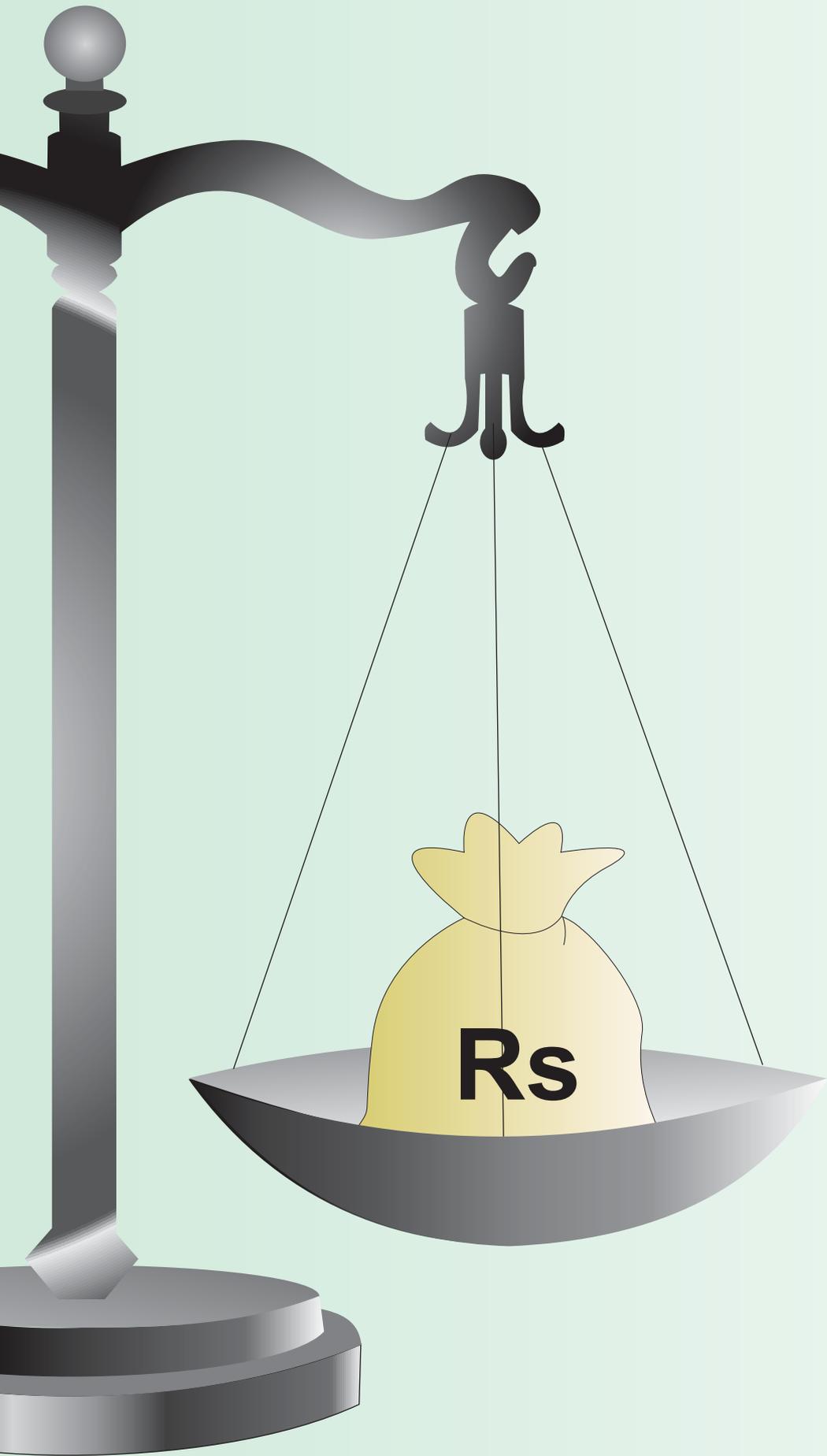
08.	Mr. R. M. A. S. Weerasena DGM (IA)	- Member	alia engaged in the following activities /discussions during the financial year under review.
09.	Mr. W. A. N. Wickramatunga Actg. Addl. GM (CS) (Up to May 2013)	- Member	Submission of Annual Reports, Review of the financial status of year 2012, Implementation of IT solution modules, Internal Audit Plan, Reconciliation of non-operating ledger balances, Delay in Project Accounts, Delay in repayment of loan capital & interest, Review of COPE reports & Water Trust (Jala Baraya).
10.	Mr. K. R. Devasurendra Addl. GM (CS) (With effect from May 2013)	- Member	
11.	Mr. W. P. Sandamali de Silva Secretary to the Board	- Secretary to the Committee	

The Audit & Management Committee met 06 times and inter

# Financial Statements

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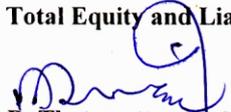


# National Water Supply And Drainage Board

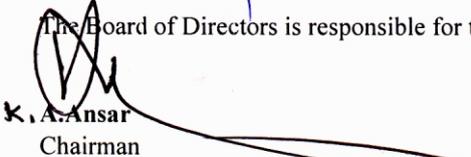
## STATEMENT OF FINANCIAL POSITION

As at 31 December 2013

		2013	2012
		<u>Rs.</u>	<u>Rs.</u>
<b>Assets</b>			
<b>Non- Current Assets</b>			
Property ,Plant & Equipment	Notes 31	107,314,686,179	106,084,069,132
Intangible Assets	17	102,025,883	153,038,825
Capital Work in Progress	16	121,425,426,860	103,647,170,880
Other Financial assets	18	<u>31,008,001</u>	<u>37,818,865</u>
<b>Total Non-Current Assets</b>		<u><b>228,873,146,924</b></u>	<u><b>209,922,097,701</b></u>
<b>Current Assets</b>			
Non Operating Assets		117,895,068	117,763,828
Inventories	19	3,800,864,478	3,193,201,351
Trade & Other Receivables	20	5,388,788,825	4,930,179,819
Deposits & Advances	21	4,286,653,401	3,496,450,351
Investments	22	340,970,189	12,341,312
Cash & Cash Equivalents	23	<u>1,879,876,757</u>	<u>1,874,266,329</u>
<b>Total Current Assets</b>		<u><b>15,815,048,719</b></u>	<u><b>13,624,202,989</b></u>
<b>Total Assets</b>		<u><b>244,688,195,643</b></u>	<u><b>223,546,300,690</b></u>
<b>Equity and Liabilities</b>			
<b>Equity</b>			
Assets taken over from Government Dept.	24	185,480,387	185,480,387
Government Grants	25	81,069,995,266	77,931,820,155
Capital Grants	26	129,350,994,923	116,361,732,845
Staff Welfare Fund	27	15,101,490	14,415,579
Retained Earnings		<u>(12,464,631,605)</u>	<u>(13,466,806,100)</u>
<b>Total Equity</b>		<u><b>198,156,940,461</b></u>	<u><b>181,026,642,866</b></u>
<b>Non-Current Liabilities</b>			
Loan Payable	28	32,146,717,058	29,011,510,716
Other Deferred Liabilities	29	<u>2,152,117,268</u>	<u>2,152,080,885</u>
<b>Total Non-Current Liabilities</b>		<u><b>34,298,834,326</b></u>	<u><b>31,163,591,601</b></u>
<b>Current Liabilities</b>			
Trade & Other Payables	30	5,258,217,735	4,923,021,889
Loan Capital Payable		4,470,617,294	3,592,784,161
Loan Interest Payable		2,431,658,078	2,768,276,863
Non Operating Liabilities		<u>71,927,749</u>	<u>71,983,310</u>
<b>Total Current Liabilities</b>		<u><b>12,232,420,855</b></u>	<u><b>11,356,066,223</b></u>
<b>Total Equity and Liabilities</b>		<u><b>244,688,195,643</b></u>	<u><b>223,546,300,690</b></u>

  
D. Thotawatte  
Addl.G.M.(Finance)

The Board of Directors is responsible for the preparation and presentation of these financial statements

  
K. A. Ansar  
Chairman

  
B. W. R. Balasuriya  
General Manager

Accounting Policies & Notes from pages 6 to 28 form an integral part of these Financial Statements.  
Colombo

National Water Supply And Drainage Board  
**STATEMENT OF COMPREHENSIVE INCOME**

Year ended 31 December 2013

	Notes	Budget 2013 Rs.	Actual 2013 Rs.	Actual 2012 Rs.
Revenue	8	18,103,221,000	17,216,624,417	14,558,557,511
Cost of Sales	9	(10,480,524,811)	(10,156,774,994)	(9,036,149,615)
<b>Gross Profit</b>		7,622,696,189	7,059,849,424	5,522,407,897
Other Operating Income and Gains	10	2,048,376,000	1,195,405,502	1,586,511,700
Administrative Expenses	11	(6,424,327,189)	(5,831,427,723)	(5,838,381,320)
Other Operating Expenses	12	(385,000,000)	(559,425,320)	(54,474,810)
<b>Operating Profit / (Loss)</b>		2,861,745,000	1,864,401,883	1,216,063,467
Finance Income	14	150,000,000	225,687,464	213,955,983
Finance Cost	13	(1,288,586,000)	(1,039,762,873)	(1,013,244,742)
<b>Profit / (Loss) before tax</b>		1,723,159,000	1,050,326,475	416,774,708
Taxation	15	(45,000,000)	(47,466,069)	(40,217,024)
<b>Profit / (Loss) for the Year</b>		1,678,159,000	1,002,860,406	376,557,684
<b>Other Comprehensive Income for the Year, Net of Tax</b>		-	-	-
<b>Total Comprehensive Income for the Year</b>		1,678,159,000	1,002,860,406	376,557,684

*Accounting Policies & Notes from pages 6 to 28 form an integral part of these Financial Statements.*

## National Water Supply And Drainage Board STATEMENT OF CHANGES IN EQUITY

Year ended 31 December 2013

	Assets from Government Departments Rs.	Govt Grants Rs.	Capital grants Rs.	Staff Welfare Fund Rs.	Accumulated Profit/Loss	Total Rs.
<b>Balance as at 1 January 2012</b>	185,480,387	69,440,023,265	94,049,872,568	13,935,577	(12,733,326,604)	150,955,985,193
<i>Prior Year correction -</i>						
Assets recognition and Derecognition	-	-	-	-	1,897,421,253	1,897,421,253
Depreciation adjustment for assets recognition and derecognit	-	-	-	-	38,770,777	38,770,777
<b>Restated balance as at 1 January 2012</b>	<b>185,480,387</b>	<b>69,440,023,265</b>	<b>94,049,872,568</b>	<b>13,935,577</b>	<b>(10,797,134,574)</b>	<b>152,892,177,223</b>
Net profit for the year	-	-	-	-	376,557,684	376,557,684
Receipts / Transfers during the year	-	8,491,796,890	22,311,860,277	-	-	30,803,657,167
Transfers to Staff welfare fund	-	-	-	480,002	(480,002)	-
Prior Year Adjustments (Salary arrears 2009)	-	-	-	-	(37,642,777)	(37,642,777)
Prior year adj. (GL code 680 error correction)	-	-	-	-	2,419,568	2,419,568
Prior year adjustment (Sewerage)	-	-	-	-	(41,293,375)	(41,293,375)
Revaluation Deficit	-	-	-	-	(3,777,509,200)	(3,777,509,200)
Disposal Adjustment	-	-	-	-	(3,050,766)	(3,050,766)
Non conversion adjustments	-	-	-	-	811,327,342	811,327,342
<b>Balance as at 31 December 2012</b>	<b>185,480,387</b>	<b>77,931,820,155</b>	<b>116,361,732,845</b>	<b>14,415,579</b>	<b>(13,466,806,100)</b>	<b>181,026,642,866</b>
Net profit for the year	-	-	-	-	1,002,860,406	1,002,860,406
Receipts / Transfers during the year	-	3,138,175,111	12,989,262,078	-	-	16,127,437,189
Transfers to Staff welfare fund	-	-	-	685,911	(685,911)	-
<b>Balances as at 31 December 2013</b>	<b>185,480,387</b>	<b>81,069,995,266</b>	<b>129,350,994,923</b>	<b>15,101,490</b>	<b>(12,464,631,605)</b>	<b>198,156,940,461</b>

*Accounting Policies & Notes from pages 6 to 28 form an integral part of these Financial Statements.*

# National Water Supply And Drainage Board

## STATEMENT OF CASH FLOW

Year ended 31 December 2013

	<b>2013</b>	<b>2012</b>
	<b>Rs.</b>	<b>Rs.</b>
<b>Cash Flows From / (Used in) Operating Activities</b>		
Net Profit/(Loss) before Tax	1,050,326,475	407,019,536
<b>Adjustments for</b>		
Interest Income	(225,687,464)	(213,955,983)
Profit/Loss on disposal of Fixed Assets	(14,647)	3,689,147
Depreciation	2,586,090,059	2,026,525,175
Revaluation loss	-	776,836,147
Grant amortization against depreciation	(590,253,350)	(336,788,311)
Retiring gratuity provision	241,659,234	(146,349,076)
Prior Year Adjustments	-	(76,516,584)
Non conversion adjustment	-	534,440,243
Interest Expense	<u>1,039,762,873</u>	<u>1,013,244,742</u>
Operating Profit before Working Capital Changes	4,101,883,179	3,988,145,035
(Increase)/Decrease in Inventories	(607,663,127)	(250,242,493)
(Increase)/Decrease in Debtors, Rece'bles & Deposits	(1,264,090,309)	509,984,138
Increase/(Decrease) in Creditors & Provisions	<u>335,176,667</u>	<u>(463,739,399)</u>
Cash Generated from Operations	2,565,306,410	3,784,147,282
Tax Paid	(47,466,069)	(40,217,024)
Gratuity Paid	<u>(241,659,234)</u>	<u>(195,686,112)</u>
<b>Net Cash from Operating Activities</b>	<u>2,276,181,107</u>	<u>3,548,244,145</u>
<b>Cash Flows from/(used) in Investing Activities</b>		
Investments in Fixed Assets & Work-In-Progress	(21,594,999,438)	(36,129,768,342)
Withdrawal of other financial assets	6,810,864	9,202,392
Sale proceeds for disposal assets	51,000	8,964,140
Investment Income Received	240,834,475	188,016,031
(Investment) / Withdrawal of Investments	<u>(328,628,877)</u>	<u>879,748,829</u>
<b>Net Cash Flows used in Investing Activities</b>	<u>(21,675,931,977)</u>	<u>(35,043,836,950)</u>
<b>Cash Flows from/(used in) Financing Activities</b>		
Government Grant during the Period	5,147,344,801	9,906,397,371
Capital Grant during the period	13,530,554,067	22,623,615,804
New Loans	4,213,780,952	2,665,416,044
Loan Repayments	(200,741,478)	(610,990,948)
Interest Paid	(1,376,381,658)	(686,425,837)
VAT payments through treasury funds	<u>(1,909,195,386)</u>	<u>(1,338,554,755)</u>
	19,405,361,298	32,559,457,679
<b>Net Increase in Cash &amp; Cash Equivalents</b>	5,610,428	1,063,864,875
Cash & Cash Equivalents at the beginning of the year	1,874,266,329	810,401,456
<b>Cash &amp; Cash Equivalents at the end of the period</b>	<u>1,879,876,757</u>	<u>1,874,266,329</u>

*Accounting Policies & Notes from pages 6 to 28 form an integral part of these Financial Statements.*

**NATIONAL WATER SUPPLY AND DRAINAGE BOARD  
NOTES TO THE FINANCIAL STATEMENTS**

**31 DECEMBER 2013**

## CORPORATE INFORMATION

### 1.1 General

National Water Supply & Drainage Board is a statutory board enacted by the Parliament under the National Water Supply & Drainage Board Law No. 2 of 1974. The registered office of the Board is located at Galle Road, Ratmalana, and the principal place of business is situated at the same location.

National Water Supply & Drainage Board (NWS&DB) is an institution that is under the purview of Ministry of Water Supply & Drainage

### 1.2 Principle activities

During the year, the principal activity of the Board is to produce and sell treated drinking water to the community.

The objectives of the National Water Supply & Drainage Board are development of the treated drinking water throughout the country and build a better Sri Lanka.

## 2. BASIS OF PREPARATION

### 2.1 Statement of Compliance

The Financial Statements have been prepared in accordance with Sri Lanka Accounting Standards (SLFRS/LKAS) as issued by the Institute of Chartered Accountants of Sri Lanka.

For all periods up to and including the year ended 31<sup>st</sup> December 2011, the NWS&DB prepared its financial statements in accordance with Sri Lanka Accounting Standards (SLAS). From the financial year ending 31<sup>st</sup> December 2012 onward financial statements are being prepared in accordance with the new Sri Lanka Accounting Standards (SLFRS/LKAS).

### 2.2 Basis of Measurement

The Financial Statements have been prepared on the historical cost basis except for financial instruments and other financial assets and liabilities held for trading that have been measured at fair value and liabilities for defined benefit obligation is recognized as at the present value of the defined benefit obligation.

## 3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### 3.1 Property Plant and Equipment

Property, plant and equipment is stated at cost, net of accumulated depreciation and accumulated impairment losses, if any. Such cost includes the cost of replacing part of the property, plant and equipment and borrowing costs for long-term construction projects if the recognition criteria are met. When significant parts of property, plant and equipment are required to be replaced at intervals, NWS&DB recognises such parts as individual assets with specific useful lives and depreciates them accordingly. Likewise, when a major inspection is performed, its cost is recognised in the carrying amount of the plant and equipment as a replacement if the recognition criteria are satisfied. All other repair and maintenance costs are recognised in profit or loss as incurred.

The present value of the expected cost for the decommissioning of an asset after its use is included in the cost of the respective asset if the recognition criteria for a provision are met.

### 3.1.1 Depreciation

Depreciation is calculated on a straight-line basis over the estimated useful lives of the assets as follows:

<b>Plant Property and Equipment</b>	<b>Rate</b>
Building & Structures	1.67% - 2%
Plant & equipment pumping treatment	5%
Service & Bulk water meter	10%
Transmission & Distribution:	1.67%
Equipments	10%
Furniture & fittings	10%
Computers Peripherals & Mobile Phones	20% - 33.3%
Motor Vehicles	10% - 20%
Lease hold Vehicles	14.3%

### 3.1.2 Investment Property

When the use of a property changes from owner-occupied to another party is classified as investment Property and the Investment Property is measured at cost less accumulated depreciation.

### 3.1.3 Capital Work In Progress

Capital expenses incurred during the year, which are not capitalized as at the balance sheet date are shown as Capital work in progress, whilst the capital assets which have been capitalized during the year and put to use have been transferred to Property Plant & Equipment.

### 3.1.4 Leases

The determination of whether an arrangement is, or contains, a lease is based on the substance of the arrangement at the inception date, whether fulfillment of the arrangement is dependent on the use of a specific asset or assets or the arrangement conveys a right to use the asset, even if that right is not explicitly specified in an arrangement.

### 3.1.5 Intangible Assets

Intangible assets acquired separately are measured on initial recognition at cost. Following initial recognition, intangible assets are carried at cost less accumulated amortization and accumulated impairment losses, if any. Internally generated intangible assets, excluding capitalized development costs, are not capitalized and expenditure is reflected in the income statement in the year in which the expenditure is incurred.

### 3.1.6 Research and development costs

Research costs are expensed as incurred. Development expenditures on an individual project are recognized as an intangible asset when NWS&DB can demonstrate:

- The technical feasibility of completing the intangible asset so that the asset will be available for use or sale
- Its intention to complete and its ability to use or sell the asset
- How the asset will generate future economic benefits
- The availability of resources to complete the asset

- The ability to measure reliably the expenditure during development

Following initial recognition of the development expenditure as an asset, the asset is carried at cost less any accumulated amortisation and accumulated impairment losses. Amortisation of the asset begins when development is complete and the asset is available for use. It is amortized over the period of expected future benefit. During the period of development, the asset is tested for impairment annually.

### 3.1.7 Impairment of Non-Financial Assets

The NWS&DB assesses at each reporting date whether there is an indication that an asset may be impaired. If any indication exists, or when annual impairment testing for an asset is required, the NWS&DB estimates the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or cash-generating units (CGU) fair value less costs to sell and its value in use and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. Where the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining fair value less costs to sell, recent market transactions are taken into account, if available. If no such transactions can be identified, an appropriate valuation model is used.

### 3.2.1 Inventories

Inventories are recognized at cost and net realizable value whichever is lower after making due allowance for obsolete and slow moving items which are valued at 'First In First Out' basis. Net realizable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and the estimated costs necessary to make the sale.

#### Measurement of inventories

### 3.2.2 Cost of Inventories

#### Raw Materials

Cost of purchases together with any incidental expenses.

#### Other stocks

Cost is arrived at weighted average basis.

### 3.3. Cash and Cash Equivalents

Cash and cash equivalents comprise cash in hand and bank balances and short term investment, net of outstanding bank overdrafts if any

## 4. LIABILITIES, PROVISIONS AND EQUITY

### 4.1. Retirement Benefit Obligation

#### 4.1.1 Retirement Benefit Obligations (LKAS 19)

##### a) Defined Benefit Plan – Gratuity

Provision has been made for retiring gratuity from the first year of service for all employees, in conformity with Sri Lanka Accounting Standard No. 19 (LKAS 19).

**b) Retirement Benefit Cost**

NWSDB operates a defined benefit pension plan. The cost of providing benefits under the defined benefit plan is determined using the projected unit credit method. Actuarial gains and losses for the defined benefit plan are recognized in full in the period in which they occur in other comprehensive income. Such actuarial gains and losses are also immediately recognized in retained earnings and are not reclassified to profit or loss in subsequent periods.

Unvested past service costs are recognized as an expense on a straight line basis over the average period until the benefits become vested. Past service costs are recognized immediately if the benefits have already vested immediately following the introduction of, or changes to, a pension plan.

The defined benefit asset or liability comprises the present value of the defined benefit obligation (using a discount rate based on high quality corporate bonds), less unrecognized past service costs and less the fair value of plan assets out of which the obligations are to be settled. Plan assets are assets that are held by a long-term employee benefit fund or qualifying insurance policies. Plan assets are not available to the creditors of the NWSDB, nor can they be paid directly to the NWSDB. The value of any defined benefit asset recognized is restricted to the sum of any unrecognized past service costs and the present value of any economic benefits available in the form of refunds from the plan or reductions in the future contributions to the plan.

**c) Defined Contribution Plans- EPF & ETF**

Employees are eligible for Employees' Provident Fund Contributions and Employees' Trust Fund Contributions in line with respective Statutes and Regulations. The Board contributes 12% and 3% of gross emoluments of employees to EPF and ETF respectively.

**4.2 Provisions**

**General**

Provisions are recognised when NWS&DB has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. When NWS&DB expects some or all of a provision to be reimbursed, for example, under an insurance contract, the reimbursement is recognized as a separate asset, but only when the reimbursement is virtually certain. The expense relating to a provision is presented in the income statement net of any reimbursement.

**4.3 Government grants**

Government grants are recognised where there is reasonable assurance that the grant will be received and all attached conditions will be complied with. When the grant relates to an expense item, it is recognised as income on a systematic basis over the periods that the costs, which it is intended to compensate, are expensed. When the grant relates to an asset, it is recognised as income in equal amounts over the expected useful life of the related asset.

When NWS&DB receives non-monetary grants, the asset and the grant are recorded at nominal amounts and released to profit or loss over the expected useful life in a pattern of consumption of the benefit of the underlying asset by equal annual installments. When loans or similar assistance are provided by governments or related institutions, with an interest rate below the current applicable market rate, the effect of this favorable interest is regarded as a government grant.

## 5. INCOME STATEMENT

For the purpose of presentation of the Income Statement, the function of expenses method is adopted, as it represents fairly the elements of NWS&DB performance.

### 5.1.1 Revenue Recognition

Revenue is recognised to the extent that it is probable that the economic benefits will flow to the NWS&DB and the revenue can be reliably measured, regardless of when the payment is being made. Revenue is measured at the fair value of the consideration received or receivable taking into account contractually defined terms of payment.

The following specific recognition criteria must also be met before revenue is recognised:

#### Sale of goods

Revenue from the sale of goods is recognised when the significant risks and rewards of ownership of the goods have passed to the buyer, usually on delivery of the goods.

#### Sale of Water

Revenue from sale of water is recognized according to the number of consumed unit within 30 days of time by the consumer, when the meters are read and when bills are processed within the system.

#### Other Income

Other income is recognised on an accrual basis.

#### Interest income

For all financial instruments measured at amortised cost and interest bearing financial assets classified as available for sale, interest income or expense is recorded using the effective interest rate (EIR), which is the rate that exactly discounts the estimated future cash payments or receipts through the expected life of the financial instrument or a shorter period, where appropriate, to the net carrying amount of the financial asset or liability. Interest income is included in finance income in the income statement.

#### Rechargeable Works

Revenue from fixed price construction contracts is recognized on the percentage of completion method, measured by the work done of the contract.

### 5.1.2 Expenses

All expenditures incurred in the running of the business have been charged to income in arriving at the profit for the year. Repairs and renewals are charged to profit and loss in the year in which the expenditure is incurred.

## 5.2 Deferred tax

Deferred tax is provided using the liability method on temporary differences between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes at the reporting date. Deferred tax liabilities are recognised for all taxable temporary differences, except:

When the deferred tax liability arises from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss.

Deferred tax assets are recognised for all deductible temporary differences, carry forward of unused tax credits and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carry forward of unused tax credits and unused tax losses can be utilised, except:

When the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss.

In respect of deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, deferred tax assets are recognised only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilized.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilised. Unrecognised deferred tax assets are reassessed at each reporting date and are recognised to the extent that it has become probable that future taxable profits will allow the deferred tax asset to be recovered. Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date.

Deferred tax relating to items recognised outside profit or loss is recognised outside profit or loss. Deferred tax items are recognised in correlation to the underlying transaction either in other comprehensive income or directly in equity. Deferred tax assets and deferred tax liabilities are offset if a legally enforceable right exists to set off current tax assets against current income tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

## **6. FINANCIAL INSTRUMENTS- INITIAL RECOGNITION AND SUBSEQUENT MEASUREMENT**

### **6.1 Financial asset**

#### **6.1.1 Initial recognition and measurement**

Financial assets within the scope of LKAS 39 are classified as financial assets at fair value through profit or loss, loans and receivables, held-to-maturity investments and available-for-sale financial assets, as appropriate and determine the classification of its financial assets at initial recognition.

All financial assets are recognized initially at fair value plus, in the case of assets not at fair value through profit or loss, directly attributable transaction costs.

The financial assets of NWS&DB include cash and short term investment, trade and other receivables, staff loans and other receivables.

#### **6.1.2 Subsequent measurement**

The subsequent measurement of financial assets depends on their classification as follows

##### **6.1.2.1 Financial assets at fair value through profit or loss**

Financial assets at fair value through profit or loss include financial assets held for trading and financial assets designated upon initial recognition at fair value through profit or loss. Financial assets are classified as held for trading if they are acquired for the purpose of selling or repurchasing in the near term. NWS&DB did not have any financial assets at fair value through profit or loss during the years ended 31 December 2012 and 2011.

##### **6.1.2.2 Loans and receivables**

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. After initial measurement, such financial assets are subsequently measured at amortized cost using the effective interest rate method (EIR), less impairment. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included in finance income in the income statement. The losses arising from impairment are recognized in the income statement in finance cost.

#### 6.1.2.3 Held-to-maturity investments

Non-derivative financial assets with fixed or determinable payments and fixed maturities are classified as held to-maturity when the NWS&DB has the positive intention and ability to hold it to maturity. After initial measurement, held-to-maturity investments are measured at amortised cost using the effective interest method, less impairment. Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortisation is included in finance income in the income statement. The losses arising from impairment are recognised as finance cost in the income statement in finance cost. NWS&DB did not have any held –to- maturity investments during the years ended 31 December 2013 and 2012.

#### 6.1.2.4 Available-for-sale financial investments

Available-for-sale financial investments include equity and debt securities. Equity investments classified as available for- sale are those, which are neither classified as held for trading nor designated at fair value through profit or loss. Debt securities in this category are those which are intended to be held for an indefinite period of time and which may be sold in response to needs for liquidity or in response to changes in the market conditions.

After initial measurement, available-for-sale financial investments are subsequently measured at fair value with unrealized gains or losses recognised as other comprehensive income in the available-for-sale reserve until the investment is derecognized. NWS&DB did not have any available for –sale financial investments during the years ended 31 December 2013 and 2012.

#### 6.1.2.5 Derecognition

A financial asset (or, where applicable a part of a financial asset or part of a group of similar financial assets) is derecognized when,

- i) The rights to receive cash flows from the asset have expired
- ii) NWS&DB has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a ‘pass-through’ arrangement; and either
  - (a) NWS&DB has transferred substantially all the risks and rewards of the asset, or
  - (b) NWS&DB has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

#### 6.1.2.6 Impairment of financial assets

The NWS&DB assesses at each reporting date whether there is any objective evidence that a financial asset or a group of financial assets is impaired. A financial asset or a group of financial assets is deemed to be impaired if, and only if, there is objective evidence of impairment as a result of one or more events that has occurred after the initial recognition of the asset and that loss event has an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated.

Evidence of impairment may include indications that the debtors or a group of debtors is experiencing significant financial difficulty, default or delinquency, the probability that they will enter bankruptcy or other financial reorganization and where observable data indicate that there is a measurable decrease in the estimated future cash flows, such as changes in arrears or economic conditions that correlate with defaults.

#### 6.1.2.7 Financial assets carried at amortized cost

For financial assets carried at amortized cost, the NWS&DB first assesses whether objective evidence of impairment exists individually for financial assets that are individually significant, or collectively for financial assets that are not individually significant. If the NWS&DB determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Assets that are individually assessed for impairment and for which an impairment loss is, or continues to be, recognised are not included in a collective assessment of impairment.

If there is objective evidence that an impairment loss has been incurred, the amount of the loss is measured as the difference between the assets carrying amount and the present value of estimated future cash flows (excluding future expected credit losses that have not yet been incurred). The present value of the estimated future cash flows is discounted at the financial asset's original effective interest rate.

The NWS&DB performed specific impairment for each debtor categories during the years 2013 and 2012

## 6.2 Financial Liabilities

### Initial recognition and measurement

Financial liabilities within the scope of LKAS 39 are classified as financial liabilities at fair value through profit or loss, at amortised cost, or as derivatives designated as hedging instruments in an effective hedge, as appropriate. NWS&DB determines the classification of its financial liabilities at initial recognition.

All financial liabilities are recognised initially at fair value and, in the case of loans and borrowings, carried at amortised cost. This includes directly attributable transaction costs. NWS&DB's financial liabilities include trade and other payables.

### Subsequent measurement

Subsequent measurement of financial liabilities are at amortised cost.

### Derecognition

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expires.

# National Water Supply And Drainage Board

## NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2013

		2013	2012
		Rs.	Rs.
<b>8. REVENUE</b>			
Metered Sales		15,943,128,990	13,142,244,955
Bulk Sales		160,163,490	143,402,987
Bowser Supply		57,223,248	60,949,407
Income from main Operations	<b>8.1</b>	<u>1,056,108,689</u>	<u>1,211,960,163</u>
		<b><u>17,216,624,417</u></b>	<b><u>14,558,557,511</u></b>
<b>8.1 Income from main operations</b>			
Income related to main operations		1,925,421,265	2,064,824,091
Expense related to main operations		<u>(869,312,576)</u>	<u>(852,863,928)</u>
		<b><u>1,056,108,689</u></b>	<b><u>1,211,960,163</u></b>
<b>9. COST OF SALES</b>			
Personnel Cost		4,245,514,239	3,917,753,682
Pumping Cost		3,356,523,999	2,894,657,147
Chemicals		579,044,942	500,328,094
Repairs & Maintenance		825,725,856	698,438,461
Establishment Expenses		385,168,186	326,145,933
Rent, Rates, Taxes, Security & Other Expenses		623,159,830	484,474,286
Rebates		<u>141,637,941</u>	<u>214,352,013</u>
		<b><u>10,156,774,994</u></b>	<b><u>9,036,149,615</u></b>
<b>10. OTHER OPERATING INCOME</b>			
Capital Recovery Charges		545,105,713	619,251,603
Other Income	<b>10.1</b>	610,708,626	793,621,926
Staff loan benefit		39,591,163	27,289,095
Over provision on Defined Benefit Plans		<u>-</u>	<u>146,349,076</u>
		<b><u>1,195,405,502</u></b>	<b><u>1,586,511,700</u></b>
<b>10.1 Other Income</b>			
Income related to other operations		664,017,926	877,130,870
Expenses related to other operations		<u>(53,309,300)</u>	<u>(83,508,945)</u>
		<b><u>610,708,626</u></b>	<b><u>793,621,926</u></b>

**National Water Supply And Drainage Board**  
**NOTES TO THE FINANCIAL STATEMENTS**

Year ended 31 December 2013

	<b>2013</b>	<b>2012</b>
	<b>Rs.</b>	<b>Rs.</b>
<b>11. ADMINISTRATIVE EXPENSES</b>		
Repairs & Maintenance	160,576,714	131,072,790
Establishment Expenses	505,176,409	466,373,572
Rent,Rates,Taxes, Security & Other Expenses	255,334,016	209,282,718
Staff Cost <b>11.1</b>	2,914,503,874	2,574,834,402
Depriciation <b>11.2</b>	1,995,836,709	1,679,981,692
Revaluation Deficit	-	776,836,147
	<u><b>5,831,427,723</b></u>	<u><b>5,838,381,320</b></u>
<b>11.1 Staff cost</b>		
Staff Cost	39,591,163	27,289,095
Personnel Cost	<u>2,874,912,711</u>	<u>2,547,545,307</u>
	<u><b>2,914,503,874</b></u>	<u><b>2,574,834,402</b></u>
<b>11.2 Depreciation</b>		
Building and structure	634,676,450	536,771,972
Plant & Machinery	741,971,331	560,701,728
Equipments	968,676,110	711,388,070
Furniture and Fittings	25,820,730	20,525,015
Computers & Periparels	48,532,479	39,652,053
Motor Vehicles Cars	<u>166,412,961</u>	<u>147,731,165</u>
	2,586,090,059	2,016,770,003
Less: Depn. for Grant funded Assets	<u>(590,253,350)</u>	<u>(336,788,311)</u>
	<u><b>1,995,836,709</b></u>	<u><b>1,679,981,692</b></u>
<b>12. OTHER OPERATING EXPENSES</b>		
Bad & Doubtful Debts	320,141,327	64,219,260
Provision for Irrecoverable Staff Loans	1,864,720	2,420,995
Over Provision for Obsolete Stock	(4,239,961)	(12,165,445)
Defined Benefit Plans	<u>241,659,234</u>	<u>-</u>
	<u><b>559,425,320</b></u>	<u><b>54,474,810</b></u>
<b>13. FINANCE COST</b>		
Interest On Loans	1,983,547,681	1,723,224,377
Less: Capitalised Interest on Construction Projects	<u>(943,784,808)</u>	<u>(709,979,636)</u>
	<u><b>1,039,762,873</b></u>	<u><b>1,013,244,742</b></u>
<b>14. FINANCE INCOME</b>		
Investment Income	<u>225,687,464</u>	<u>213,955,983</u>
	<u><b>225,687,464</b></u>	<u><b>213,955,983</b></u>
<b>15. TAXATION</b>		
Economic Service Charge	<u>47,466,069</u>	<u>40,217,024</u>
	<u><b>47,466,069</b></u>	<u><b>40,217,024</b></u>

# National Water Supply And Drainage Board

## NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2013

	2013 Rs.	2012 Rs.
<b>16. CAPITAL WORK IN PROGRESS</b>		
Construction Work	98,139,089,879	78,371,444,663
Rehabilitation	23,286,336,981	25,275,726,217
	<u>121,425,426,860</u>	<u>103,647,170,880</u>
<b>17. INTANGIBLE ASSETS</b>		
Software	153,038,825	204,051,766
Amortisation	(51,012,942)	(51,012,942)
	<u>102,025,883</u>	<u>153,038,825</u>
<p>This include the ERP system, NWSDB developed for the internal use. Reaserch and development cost that are not eligible for capitalisation have been expensed in the period incurred and are recognised in administrative expenses.</p>		
<b>18. OTHER FINANCIAL ASSETS</b>		
HDFC Investment for Staff Housing Loans	29,932,486	36,785,453
Bank of Ceylon Saving - II	1,075,515	1,033,412
	<u>31,008,001</u>	<u>37,818,865</u>
<b>19. INVENTORIES</b>		
PVC Steel Pipe	2,294,459,493	2,010,557,536
Water Meter & Fitting & Brass Items	290,257,873	255,285,047
Chemical Material	109,323,685	115,591,491
Electricals	275,817,998	270,706,227
Building Material	24,202,573	31,610,128
Pump & Spare Parts	576,807,727	587,235,194
Vehicle Spare Parts	130,750,561	67,865,320
Stationary & Office Equipment	35,011,100	31,415,032
Other Items	427,216,619	307,869,265
Stock at Sites Stores	51,668,297	-
Goods In Transit	308,942,246	254,121,907
Stock Adjustments	(283,694)	(4,174,918)
Property Plant and Equipment at Stores	(690,885,204)	(698,216,120)
Provision for Obsolete Stock	(32,424,796)	(36,664,757)
	<u>3,800,864,478</u>	<u>3,193,201,351</u>
<b>20. TRADE AND OTHER RECEIVABLES</b>		
Trade Debtors	3,838,854,731	3,656,424,638
Other Debtors	272,108,436	278,718,397
Less : Debtors Impairment (Collective)	(996,113,340)	(675,666,925)
Less : Debtors Impairment (Specific)	(51,084,939)	(52,787,509)
Debtors Collection Control	553,014,331	382,205,782
VAT Receivable	16,120,916	13,046,606
WHT Receivable	20,609,164	9,358,745
Advances to Staff	24,768,881	24,985,830
Loans to Employees	1,693,962,223	1,262,198,822
Receivable on Interest & Others	16,548,423	31,695,434
	<u>5,388,788,825</u>	<u>4,930,179,819</u>

National Water Supply And Drainage Board  
**NOTES TO THE FINANCIAL STATEMENTS**

Year ended 31 December 2013

	2013 Rs.	2012 Rs.
<b>21. DEPOSITS AND ADVANCES</b>		
Rechargeable Project Work	37,610,168	47,565,589
Pre Payments	550,000	2,423,000
Special Dollar Account	-	-
Advances	4,176,010,605	3,383,312,588
Deposits	72,482,629	63,149,174
	<u><b>4,286,653,401</b></u>	<u><b>3,496,450,351</b></u>
<b>22. SHORT TERM INVESTMENTS</b>		
Held to Maturity	340,970,189	12,341,312
	<u><b>340,970,189</b></u>	<u><b>12,341,312</b></u>
<b>23. CASH AND CASH EQUIVALENTS</b>		
Cash In Bank	559,293,751	631,662,977
Cash Imprest Head Office	2,411,399	62,600
Cash Imprests Regions	1,980,633	612,172
Cash In Transit	101,197,995	67,778,397
Call Deposits	1,075,046,090	1,015,466,000
Savings Account	139,946,890	158,684,182
	<u><b>1,879,876,757</b></u>	<u><b>1,874,266,329</b></u>
<b>24. ASSETS TAKEN OVER FROM GOVERNMENT</b>		
Assets taken over from Government Dept.	185,480,387	185,480,387
	<u><b>185,480,387</b></u>	<u><b>185,480,387</b></u>
<b>25. GOVERNMENT GRANT</b>		
Tresuary Grant	81,069,995,266	77,931,820,155
	<u><b>81,069,995,266</b></u>	<u><b>77,931,820,155</b></u>
<b>26. CAPITAL GRANTS</b>		
Foreign Grants	128,841,234,082	115,885,741,431
Local Grants	509,760,841	475,991,414
	<u><b>129,350,994,923</b></u>	<u><b>116,361,732,845</b></u>
<b>27. STAFF WELFARE FUND</b>		
Opening Balance	14,415,579	13,935,577
Received during the year	685,911	480,002
	<u><b>15,101,490</b></u>	<u><b>14,415,579</b></u>

**National Water Supply And Drainage Board**  
**NOTES TO THE FINANCIAL STATEMENTS**

Year ended 31 December 2013

	<b>2013</b>	<b>2012</b>
	<b>Rs.</b>	<b>Rs.</b>
<b>28. LOAN PAYABLE</b>		
Foreign Loans through Treasury	32,116,788,047	28,980,840,227
Local Loans	<u>29,929,012</u>	<u>30,670,489</u>
	<b><u>32,146,717,058</u></b>	<b><u>29,011,510,716</u></b>
<b>29. OTHER DEFERRED LIABILITIES</b>		
Provision for Defined Benefit Plans	2,096,769,746	2,096,769,746
Customer and Employee Security Deposits	<u>55,347,521</u>	<u>55,311,139</u>
	<b><u>2,152,117,268</u></b>	<b><u>2,152,080,885</u></b>
<b>29.1. Movement of Defined Benefit Plans</b>		
Balance at the Beginning of the Period	2,096,769,746	2,438,804,935
Add Provision for the Period	241,659,234	(146,349,076)
Less: Gratuity Payments during the Period	<u>(241,659,234)</u>	<u>(195,686,112)</u>
	<b><u>2,096,769,746</u></b>	<b><u>2,096,769,746</u></b>
<b>30. TRADE AND OTHER PAYABLES</b>		
Rechargeable Work - Customer Advances	1,756,768,079	1,680,886,079
Contractors Retention	1,894,039,445	2,032,754,411
Lease Hold Creditors	5,923,133	13,820,561
Less: Interest in Suspense	(447,963)	(2,157,112)
Creditors Control	641,988,776	397,192,431
Other Creditors	58,666,367	55,286,472
Accrued Expenses	296,267,247	242,198,184
Provision for Cash Losses	-	1,075,000
Deposits	96,280,841	79,684,110
VAT Payable	375,175,632	298,983,431
With Holding Tax	729,623	693,315
Salaries and Other Payables	<u>132,826,555</u>	<u>122,605,006</u>
	<b><u>5,258,217,735</u></b>	<b><u>4,923,021,889</u></b>

# National Water Supply And Drainage Board

## NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2013

### 31. PROPERTY, PLANT AND EQUIPMENT

31.1 Gross Carrying Amounts	Restated Balance as at 01.01.2013	Additions	Transfers	Disposals	Balance As at 31.12.2013
Cost	Rs.	Rs.	Rs.	Rs.	Rs.
<b>Freehold Assets</b>					
Land Freehold	7,439,020,987	28,134,540	21,741,083	-	7,445,414,443
Land Leasehold	587,058,964	-	-	-	587,058,964
Infrastructure	3,774,360,205	33,594,750	496,970	-	3,807,457,985
Building - Freehold	7,256,719,263	309,617,925	5,299,543	-	7,561,037,645
Structures	25,710,804,144	922,614,189	3,525,411	-	26,629,892,922
Plant & eq: pumping treatment	15,857,164,699	179,145,348	52,964,546	-	15,983,345,501
Service meter	5,421,254	-	-	-	5,421,254
Bulk water meter	171,164,941	9,677,271	-	-	180,842,212
Transmission & Dist:	48,845,261,303	2,100,928,964	153,754,673	-	50,792,435,594
Mobile Eq:	236,176,148	57,063,417	13,737,518	-	279,502,047
Survey Eq:	8,057,016	6,846,777	6,394,506	-	8,509,287
Laboratory	285,078,074	43,343,175	17,881,417	-	310,539,832
Other Equipment	1,102,526,281	48,974,838	17,859,788	-	1,133,641,330
Furniture & fittings-computer	259,879,184	62,087,738	56,688,043	70,000	265,208,879
Computers & Periparels	233,152,658	41,464,078	2,042,933	-	272,573,804
Motor vehicles cars	225,965,467	16,590,238	5,183,594	-	237,372,111
Van busses & jeeps	380,734,394	4,800,000	31,797,831	-	353,736,563
Lorries & trucks	967,573,090	177,463,165	31,948,000	-	1,113,088,255
Tractors & trailers	66,643,460	2,710,000	2,550,000	-	66,803,460
Water bowsers, Heavy veh:	484,601,126	215,369,557	19,215,911	-	680,754,772
Motor cycles	17,242,089	1,473,451	2,074,195	-	16,641,345
Three Weelers	1,338,240	-	-	-	1,338,240
Lease hold Vehicles	22,671,376	-	-	-	22,671,376
<b>Total Value of Depreciable Assets</b>	<b>113,938,614,362</b>	<b>4,261,899,422</b>	<b>445,155,963</b>	<b>70,000</b>	<b>117,755,287,821</b>

National Water Supply And Drainage Board  
**NOTES TO THE FINANCIAL STATEMENTS**

Year ended 31 December 2013

**1. PROPERTY, PLANT AND EQUIPMENT**

**1.2 Depreciation**

Depreciation Freehold Assets	Restated Balance as at 01.01.2013 Rs.	Charge for the Period Rs.	Disposals Rs.	Balance As at 31.12.2013 Rs.
Infrastructure	227,846,408	73,443,191	-	301,289,599
Building - Freehold	502,556,433	138,048,114	-	640,604,547
Structures	1,475,422,949	423,185,146	-	1,898,608,095
Plant & eq: pumping treatment	2,039,285,139	741,971,331	-	2,781,256,469
Service meter	790,802	444,112	-	1,234,914
Bulk water meter	41,486,684	14,565,759	-	56,052,443
Transmission & Dist:	2,343,375,005	814,644,504	-	3,158,019,509
Mobile Equipments	55,580,597	22,922,060	-	78,502,656
Survey Equipments	498,832	870,439	-	1,369,271
Laboratory	102,060,884	29,332,287	-	131,393,171
Other Equipment	194,671,785	85,896,949	-	280,568,734
Furniture & fittings-computer	102,771,884	25,820,730	33,647	128,558,967
Computers & Periparels	104,695,991	48,532,479	-	153,228,470
Motor vehicles cars	97,601,881	31,764,599	-	129,366,480
Van busses & jeeps	239,266,666	51,125,027	-	290,391,694
Lorries & trucks	184,348,109	47,810,272	-	232,158,381
Tractors & trailers	31,242,766	6,356,858	-	37,599,624
Water bowsers, Heavy veh:	95,370,622	24,756,364	-	120,126,986
Motor cycles	3,918,302	1,390,125	-	5,308,427
Three Wheelers	203,844	129,809	-	333,653
Lease hold Vehicles	11,549,649	3,079,906	-	14,629,556
	<b>7,854,545,232</b>	<b>2,586,090,059</b>	<b>33,647</b>	<b>10,440,601,645</b>

# National Water Supply And Drainage Board

## NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2013

### 31. PROPERTY, PLANT AND EQUIPMENT

31.3 Gross Carrying Amounts	Restated Balance As at 01.01.2012 Rs.	Additions Rs.	Transfers Rs.	Disposals Rs.	Balance As at 31.12.2012 Rs.
<b>Cost</b>					
<b>Freehold Assets</b>					
Land Freehold	7,383,155,432	2,788,039,814	2,732,174,259	-	7,439,020,987
Land Leasehold	587,058,964	1,035	1,035	-	587,058,964
Infrastructure	3,126,260,360	651,015,899	2,916,054	-	3,774,360,205
Building - Freehold	6,563,332,984	1,034,073,224	340,686,945	-	7,256,719,263
Structures	24,438,760,076	5,250,342,917	3,978,298,849	-	25,710,804,144
Plant & eq: pumping treatment	11,345,317,619	4,563,561,125	51,714,045	-	15,857,164,699
Service meter	5,421,254	-	-	-	5,421,254
Bulk water meter	134,298,611	37,032,390	166,061	-	171,164,941
Transmission & Dist:	35,237,490,393	13,708,650,113	100,879,203	-	48,845,261,303
Mobile Eq:	164,483,462	95,902,726	24,210,040	-	236,176,148
Survey Eq:	1,063,203	13,388,319	6,394,506	-	8,057,016
Laboratory	230,417,539	64,254,554	9,594,018	-	285,078,074
Other Equipment	803,331,975	313,626,623	14,432,317	-	1,102,526,281
Furniture & fittings-computer	205,671,648	63,343,739	8,921,203	215,000	259,879,184
Computers & Periparels	191,155,644	49,069,417	7,072,403	-	233,152,658
Motor vehicles cars	171,130,671	59,919,383	3,164,587	1,920,000	225,965,467
Van busses & jeeps	365,309,394	39,126,175	22,201,175	1,500,000	380,734,394
Lorries & trucks	841,216,499	198,754,447	63,747,856	8,650,000	967,573,090
Tractors & trailers	89,721,460	5,540,000	27,763,000	855,000	66,643,460
Water bowsers, Heavy veh:	490,394,305	159,369,311	161,512,490	3,650,000	484,601,126
Motor cycles	12,047,506	7,702,627	2,295,543	212,501	17,242,089
Three Weelers	1,038,240	300,000	-	-	1,338,240
Lease hold Vehicles	22,671,376	-	-	-	22,671,376
<b>Total value of depreciable assets</b>	<b>92,410,748,614</b>	<b>29,103,013,838</b>	<b>7,558,145,589</b>	<b>17,002,501</b>	<b>113,938,614,362</b>

**National Water Supply And Drainage Board**  
**NOTES TO THE FINANCIAL STATEMENTS**

Year ended 31 December 2013

**31. PROPERTY, PLANT AND EQUIPMENT**

31.4 Depreciation	Restated Balance As at 01.01.2012 Rs.	Charge for the Period Rs.	Transfers Rs.	Disposals Rs.	Balance As at 31.12.2012 Rs.
<b>Depreciation</b>					
<b>Freehold Assets</b>					
Infrastructure	166,221,395	61,625,013	-		227,846,408
Building - Freehold	392,727,281	123,215,552	13,386,400		502,556,433
Structures	1,363,780,027	351,931,406	240,288,485		1,475,422,949
Plant & eq: pumping treatment	1,478,572,981	560,765,358	53,200		2,039,285,139
Service meter	346,690	444,112	-		790,802
Bulk water meter	30,393,384	11,093,300	-		41,486,684
Transmission & Dist:	1,740,132,093	603,242,912	-		2,343,375,005
Mobile Eq:	38,702,376	16,878,222	-		55,580,597
Survey Eq:	358,355	140,477	-		498,832
Laboratory	79,070,247	23,296,135	305,498		102,060,884
Other Equipment	138,446,301	56,229,282	3,798		194,671,785
Furniture & fittings-computer	82,505,335	20,525,015	102,381	156,085	102,771,884
Computers & Periparels	65,043,938	39,652,053	-		104,695,991
Motor vehicles cars	68,667,748	29,944,857	54,340	956,384	97,601,881
Van busses & jeeps	191,315,974	48,996,737	271,700	774,345	239,266,666
Lorries & trucks	147,160,370	39,686,239	826,500	1,672,000	184,348,109
Tractors & trailers	32,003,587	6,157,459	6,745,380	172,900	31,242,766
Water bowsers, Heavy veh:	88,642,007	18,919,617	11,654,252	536,750	95,370,622
Motor cycles	3,300,238	843,214	144,400	80,750	3,918,302
Three Wheelers	100,709	103,134	-		203,844
Lease hold Vehicles	8,469,743	3,079,906	-		11,549,649
	<b>6,115,960,779</b>	<b>2,016,770,003</b>	<b>273,836,333</b>	<b>4,349,214</b>	<b>7,854,545,232</b>

National Water Supply And Drainage Board  
**NOTES TO THE FINANCIAL STATEMENTS**

Year ended 31 December 2013

**31. PROPERTY, PLANT AND EQUIPMENT (Contd...)**

**31.5 Net Book Values**

	2013 Rs.	2012 Rs. Restated
<b>At Cost</b>		
Land Freehold	7,445,414,443	7,439,020,987
Land Leasehold	587,058,964	587,058,964
Infrastructure	3,506,168,386	3,546,513,796
Building - Freehold	6,920,433,098	6,754,162,829
Structures	24,731,284,827	24,235,381,195
Plant & Eq: pumping treatment	13,202,089,032	13,817,879,560
Service meter	4,186,340	4,630,452
Bulk water meter	124,789,769	129,678,257
Transmission & Dist:	47,634,416,085	46,501,886,298
Mobile Eq:	200,999,391	180,595,551
Survey Eq:	7,140,015	7,558,184
Laboratory	179,146,661	183,017,190
Other Equipment	853,072,597	907,854,496
Furniture & fittings-computer	136,649,911	157,107,300
Computers & Periparels	119,345,334	128,456,667
Motor vehicles cars	108,005,631	128,363,586
Van busses & jeeps	63,344,869	141,467,727
Lorries & trucks	880,929,874	783,224,980
Tractors & trailers	29,203,836	35,400,694
Water bowsers, Heavy veh:	560,627,787	389,230,504
Motor cycles	11,332,919	13,323,787
Three Wheelers	1,004,587	1,134,396
Lease hold Vehicles	8,041,820	11,121,727
<b>Total Carrying Amount of Property, Plant &amp; Equipment</b>	<b>107,314,686,179</b>	<b>106,084,069,132</b>

**National Water Supply And Drainage Board**  
**NOTES TO THE FINANCIAL STATEMENTS**

Year ended 31 December 2013

**31. PROPERTY, PLANT AND EQUIPMENT (Contd...)**

**31.6 Investment Property**

The Building Constructed by the Board at Sunil Mawatha, Battaramulla currently occupied by the Ministry Of Water Supply & Drainage is recognized as an Investment Property according to the LKAS 40 - Investment Property.

This Investment Property is included under the Property, Plant & Equipment

<b>Cost</b>	<b>Land</b>	<b>Building</b>	<b>Total</b>
Balance as at 01.01.2013	138,500,000	211,605,945	350,105,945
Additions	-	-	-
Disposals	-	-	-
<b>Balance as at 31.12.2013</b>	<b>138,500,000</b>	<b>211,605,945</b>	<b>350,105,945</b>
<b>Depreciation</b>			
Balance as at 01.01.2013	-	5,995,502	5,995,502
Charge for the Period	-	4,232,119	4,232,119
	-	10,227,621	10,227,621
<b>Net Book Value</b>	<b>138,500,000</b>	<b>201,378,324</b>	<b>339,878,324</b>

**National Water Supply And Drainage Board**  
**NOTES TO THE FINANCIAL STATEMENTS**

Year ended 31 December 2013

**32. DEFERRED TAXATION**

**Deferred Tax Assets, Liabilities and Income Tax relates to the followings**

	Balance Sheet		Income Statement	
	2013	2012	2013	2012
	Rs.	Rs.	Rs.	Rs.
<b>Deferred Tax Liability</b>				
Capital Allowances	6,704,854,243	6,499,837,047	205,017,196	5,405,798,412
Intangible assets	28,567,247	42,850,871	(14,283,624)	(8,034,538)
	<u>6,733,421,490</u>	<u>6,542,687,917</u>	<u>190,733,572</u>	<u>5,397,763,874</u>
<b>Deferred Tax Assets</b>				
Defined Benefit Plans	-	28,192,630	28,192,630	(30,077,408)
Debtors Impairment	189,186,739	189,186,739	-	(32,444,169)
Revaluation Deficit	-	217,514,121	217,514,121	(174,987,293)
	<u>189,186,739</u>	<u>434,893,491</u>		
<b>Deferred income tax charge/(reversal)</b>			<u>436,440,323</u>	<u>5,160,255,004</u>
<b>Net Deferred Tax Liability/ (Asset)</b>	<u>6,544,234,751</u>	<u>6,107,794,427</u>		

**Note:**

The existence of unused tax losses is strong evidence that future taxable profit may not be available. NWSDB has a cumulative tax loss of Rs.52,753,878,441 as at 31/12/2013. Therefore paying Income Tax by NWSDB is very unlikely, resulting in not recognising a net deferred tax asset /liability.

# National Water Supply And Drainage Board

## NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2013

### 33 RELATED PARTY TRANSACTIONS

#### Transactions with State and State Controlled Entities

In the normal course of its operations, the Corporation enters into transactions with related parties. Related parties include the Government of Sri Lanka (State: as the ultimate owner of the Corporation), various government departments, and State controlled entities. Particulars of transactions, and arrangements entered into by the Corporation with the State and State controlled entities which are individually significant and for other transactions that are collectively, but not individually significant are as follows:

#### Key Management Compensation

National Water Supply and Drainage Board's key management personnel include the Board of Directors, Minister and the Secretary to the Ministry of Water Supply & Drainage.

	2013 Rs.	2012 Rs.
Short term employment benefits	1,005,395	811,250

### 34 EVENTS AFTER THE BALANCE SHEET DATE

All the material events after the balance sheet date have been considered and appropriate adjustment and disclosures have been made in to the financial statement, where necessary.

# National Water Supply And Drainage Board

## NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2013

### 35 PRIOR YEAR ADJUSTMENTS

Board assets were revalued as at 31.12.2007 by obtaining the service of Department of Valuation. Revalued amount of assets were taken to the books during the year 2010 and those values are continuing as deemed cost of PPE at present. There were some duplications and omissions occurred in 2010 due to the immensity of the assets base and have been rectified as prior year adjustment with retrospective effect. Accordingly net effect of Rs. 1897 million had been adjusted for carrying amount of PPE and Rs.38.8 million had been adjusted for depreciation as at 01.01.2012 and further, 9.7 million which relates to the year 2012 have been adjusted in the administration expenses.

#### 35.1 Gross Carrying Amounts

Cost	Balance As at 01.01.2012 Rs.	Prior Year Adjustments Rs.	Restated Balance As at 01.01.2012 Rs.
<b>Freehold Assets</b>			
Land Freehold	7,749,278,932	(366,123,500)	7,383,155,432
Land Leasehold	587,058,964		587,058,964
Infrastructure	3,019,952,040	106,308,320	3,126,260,360
Building - Freehold	6,440,636,781	122,696,203	6,563,332,984
Structures	23,772,723,224	666,036,852	24,438,760,076
Plant & eq: pumping treatment	11,082,656,899	262,660,719	11,345,317,619
Service meter	5,421,254		5,421,254
Bulk water meter	107,366,459	26,932,152	134,298,611
Transmission & Dist:	34,429,793,030	807,697,363	35,237,490,393
Mobile Eq:	157,992,744	6,490,718	164,483,462
Survey Eq:	1,063,203		1,063,203
Laboratory	233,337,933	(2,920,394)	230,417,539
Other Equipment	546,847,183	256,484,792	803,331,975
Furniture & fittings-computer	202,513,767	3,157,880	205,671,648
Computers & Periparels	190,059,804	1,095,840	191,155,644
Motor vehicles cars	171,130,671		171,130,671
Van busses & jeeps	360,909,394	4,400,000	365,309,394
Lorries & trucks	837,368,499	3,848,000	841,216,499
Tractors & trailers	89,721,460		89,721,460
Water bowsers, Heavy veh:	486,394,305	4,000,000	490,394,305
Motor cycles	17,391,201	(5,343,695)	12,047,506
Three Weelers	1,038,240	-	1,038,240
Lease hold Vehicles	22,671,376	-	22,671,376
<b>Total value of depreciable assets</b>	<b>90,513,327,364</b>	<b>1,897,421,251</b>	<b>92,410,748,614</b>

National Water Supply And Drainage Board  
**NOTES TO THE FINANCIAL STATEMENTS**

Year ended 31 December 2013

<b>35.2 Depreciation</b>	<b>Balance</b>	<b>Prior Year</b>	<b>Restated Balance</b>
<b>Freehold Assets</b>	<b>As at</b>	<b>Adjustments</b>	<b>As at</b>
	<b>01.01.2012</b>		<b>01.01.2012</b>
	<b>Rs.</b>	<b>Rs.</b>	<b>Rs.</b>
Infrastructure	166,273,786	(52,391)	166,221,394.77
Building - Freehold	419,293,591	(26,566,310)	392,727,281.24
Structures	1,368,779,963	(4,999,936)	1,363,780,027.12
Plant & eq: pumping treatment	1,479,364,926	(791,945)	1,478,572,980.94
Service meter	717,059	(370,369)	346,689.70
Bulk water meter	30,393,384	-	30,393,383.87
Transmission & Dist:	1,740,386,612	(254,519)	1,740,132,093.08
Mobile Eq:	39,169,776	(467,400)	38,702,376.00
Survey Eq:	358,355	-	358,355.35
Laboratory	81,082,549	(2,012,302)	79,070,247.30
Other Equipment	138,474,713	(28,412)	138,446,300.53
Furniture & fittings-computer	82,634,769	(129,434)	82,505,334.71
Computers & Periparels	65,043,938	-	65,043,938.00
Motor vehicles cars	68,667,748	-	68,667,748.15
Van busses & jeeps	191,315,974	-	191,315,974.00
Lorries & trucks	147,160,370	-	147,160,370.00
Tractors & trailers	32,003,587	-	32,003,587.00
Water bowsers, Heavy veh:	88,642,007	-	88,642,006.98
Motor cycles	6,397,998	(3,097,760)	3,300,238.00
Three Wheelers	100,709	-	100,709.28
Lease hold Vehicles	8,469,743	-	8,469,742.68
	<b>6,154,731,556</b>	<b>(38,770,777)</b>	<b>6,115,960,779</b>



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கணக்காய்வாளர் தலைமை அபிபதி திணைக்களம்  
**AUDITOR GENERAL'S DEPARTMENT**



මගේ අංකය  
எனது இல.  
My No. }

EH/E/NWSDB/FA/2013

ඔබේ අංකය  
உமது இல.  
Your No. }

දිනය  
திகதி  
Date }

15 December 2015

The Chairman  
National Water Supply and Drainage Board

**Report of the Auditor General on the Financial Statements of the National Water Supply and Drainage Board for the year ended 31 December 2013 in terms of Section 14 (2) (c) of the Finance Act, No 38 of 1971**

The audit of financial statements of the National Water Supply and Drainage Board (NWSDB) for the year ended 31 December 2013 comprising the statement of financial position as at 31 December 2013 and the statement of comprehensive income, statement of changes in equity and cash flow statement for the year then ended and a summary of significant accounting policies and other explanatory information, was carried out under my direction in pursuance of provisions in Article 154(1) of the Constitution of the Democratic Socialist Republic of Sri Lanka read in conjunction with Section 13(1) of the Finance Act, No.38 of 1971. My comments and observations which I consider should be published with the annual report of the Board in terms of Section 14 (2) (c) of the Finance Act appear in this report. A detailed report in terms of Section 13(7)(a) of the Finance Act will be issued to the Chairman of the Board in due cause.

**1.2 Management's Responsibility for the Financial Statements**

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Sri Lanka Accounting Standards and for such internal control as the management determines is necessary to enable the preparation of financial statements that are free from material misstatements, whether due to fraud or error.

**1.3 Auditor's Responsibility**

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Sri Lanka Auditing Standards consistent with International Standards of Supreme Audit Institutions (ISSAI 1000-1810). Those Standards

require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Bank's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Board's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. Sub-sections (3) and (4) of Section 13 of the Finance Act, No 38 of 1971 give discretionary powers to the Auditor General to determine the scope and extent of the Audit.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

#### **1.4 Basis for Qualified Opinion**

My opinion is qualified based on the matters described in paragraph 2.2 of this report.

### **2. Financial Statements**

#### **2.1 Qualified Opinion**

In my opinion, except for the effects of the matters described in paragraph 2.2 of this report, the financial statements give a true and fair view of the financial position of the National Water Supply and Drainage Board (NWSDB) as at 31 December 2013 and its financial performance and cash flows for the year then ended in accordance with Sri Lanka Accounting Standards.

#### **2.2 Comments on Financial Statements**

##### **2.2.1 Sri Lanka Accounting Standards (LKAS)**

**LKAS 2 – Inventories:** The stock items stored at sites valued at Rs. 51.67 million as at 31 December 2013 had been classified in the financial statements based on the place of storage without being classified based on the types or nature of the items.

### 2.2.2 Accounting Deficiencies

The following observations are made.

- (a) Sums aggregating Rs. 458.89 million in relating to the stocks of motor vehicle spare parts, water pumps and pump spare parts had been capitalized without considering the capitalization criteria of the property, plant and equipment (PPE). Hence, the PPE shown in the financial statements had been overstated by similar amount.

Further, the pumps, pipes and spare parts capitalized during the year under review was Rs.690.88million but the value of physically verified balance as at 31 December 2013 was Rs. 707.56 million. Therefore, the PPE shown in the financial statements as at 31 December 2013 had been understated by Rs.16.67 million.

- (b) The following observations are made in respect of the net value of the property, plant and equipment amounting to Rs.107,314.69 million shown in the financial statements.
- (i) Non-current assets amounting to Rs.24.24 million which remained at stocks had not been brought to the accounts and therefore, the PPE and stocks balance had been understated and over stated respectively by similar amount. Further, the depreciations shown in the financial statements as at 31 December 2013 had been understated by Rs.1.07 million.
- (ii) Even though the lease period of assets valued at Rs. 48.27 million at Ambatale Water Treatment Plant obtained by the Board from a private company on lease basis for a period of ten years during the year 2002 had been elapsed on 30 September 2012, this had been brought to accounts as an asset of the Board.
- (iii) A stocks of 77 items of non-current assets of the Eastern Regional Support Centre had not been valued and accounted for.
- (iv) Non-current assets totalling Rs,13.68 million had been included twice in the PPE shown in the financial statements and depreciated at Rs.228,508, thus understating the profit for the year under review and overstating the PPE as at 31 December 2013 by similar amount.
- (v) The motor vehicles, buildings and other non-current assets valued at Rs.499.29 million belonging to Southern Regional Support Centre had not been taken to the financial statements for the year under review and depreciated. Therefore, the profit for the year under review had been overstated by Rs.22.89 million.



- (vi) Even though the motor vehicles valued at Rs. 39 million purchased from foreign grants had been capitalized by the Kelaniya Region Office, the amortization of grant amounting to Rs.1.95 million for the year under review had not been adjusted in the financial statements.
  - (vii) A land valued at Rs. 2.64 million included in the work-in –progress of the Yatiyanthota Water Supply Scheme had incorrectly been transferred to the PPE as Rs. 26.4 million in the year 2012. as that error had not been rectified during the year under review, the property, the plant and equipment and work -in- progress shown in the financial statements for the year under review had been overstated and understated respectively by Rs. 23.76 million.
- (c) The following observations are made in respect of the net value of stocks balance amounting to Rs.3,800.86 million shown in the financial statements.
- (i) The provision made for the obsolete stocks had been overstated by Rs.2.81 million due to incorrect computations.
  - (ii) The stocks valued at Rs.4.23 million received from Sri Lanka Tsunami Sector Areas Recovery and Take-off Project (START) to Kalutara Regional Stores had not been brought to the accounts. Further, 8,246 stocks items received from Biwater Project to Negombo Production Centre had not been brought to the accounts.
- (d) Without calculation of actual cash movement of the fixed assets and capital work-in-progress for the year under review, the difference of Rs. 21,595 million between the opening and closing balance of that account had been identified as cash outflow in the cash flow statements of the year under review. The actual amount spent during the year under review could not be ascertained in audit due to non-maintenance of required records.
- (e) The following observations are made in respect of the work-in- progress balance of Rs.121,425.42 million shown in the financial statements.
- (i) The cost of completed and commissioned 144 water supply Projects amounting to Rs.4,460 million had remained in the work-in- progress as at 31 December 2013 without being capitalized. Further, nine projects costing Rs. 122.64 million out of them had been completed over four years ago.
  - (ii) The above mentioned work-in-progress balance had been understated by Rs. 20.87 million due to abnormal negative balances included therein.
  - (iii) Balance aggregating Rs. 1,007.14 million had remained unchanged over period ranging 3 to 7 years without being investigated in order to make necessary adjustments in the financial statements.

- (iv) Two outside Projects undertaken by the Board for Rs. 129.1 million had been completed and handed over to the respective parties as at 31 December 2013. Nevertheless, they were remained in the above mentioned work-in-progress balance.
  - (v) Certain expenditure in relating to the completed and capitalized three Projects costing Rs.87.67 million had remained in the work-in-progress without being transferred to the respective assets account.
  - (vi) The work-in-progress balance of the Greater Colombo Rehabilitation Project had been understated by Rs.2.02 million due to recording the reimbursement of salaries twice in the accounts of the Board and omission of overhead expenditure therefrom.
  - (vii) Kaluthara Regional Support Centre had been included a sum of Rs. 999,511 of expenditure which was not related to the work-in-progress .
- (f) The following observations are made in respect of the balance connected to Rs. 2,431.66 million shown under loan interest payable in the financial statements.
- (i) Interest payable for the years 2011 and 2012, and the first half of the year 2013 in respect of loan obtained for the Project on Consultancy Services of Non-revenue Water (NRW) Engineering Study/Master Plan amounting to Rs.2.2 million and Rs.2.48 million respectively had not been brought to accounts.
  - (ii) Interest aggregating Rs.77.24 million for the years 2010 and 2012 in respect of the Scheme of Integrated Water Supply for the Unserved Areas of Ampara District – Phase III had not been accounted for. Further, the interest due for the second half of the year under review had also been not ascertained.
  - (iii) Interest in respect of the year under review had not been computed and brought to accounts on the loan balance amounting to Rs. 34.14 million shown in the financial statements as at 31 December 2013 in respect of Project for Design and Construction of Drinking Water Treatment Facility for Moratuwa, Panadura and Negombo under Spanish Tsunami Facility Fund due to un-identifying the facility granted to the Board as loan or grant.
- In this regard the Chairman of the Board stated that ***“The Treasury has approved to convert the outstanding loan and interest as at 31December 2014 into Government Equity to NWSDB. The accounting entry to convert the outstanding loans and interest will take place in the year 2015 accounts.”***
- (g) The sub-loan granted by the General Treasury for the Jaffna Killinochchi Water Supply Project funded by the Asian Development Bank amounted to Rs. 88.12 million had not been brought to the financial statements for the year under review. Further, the work-in-progress



balance of the Project amounting to Rs. 88.12 million had also been omitted from the accounts.

- (h) The foreign aid granted by the Government of France and French Development Agency for Greater Trincomalee Water Supply Project in 2009 amounted to Rs. 133.72 million . The General Treasury had treated a half of that as a grant and the balance half as a sub-loan. However, the Board had accounted the entire amount as a loan in 2009 and the error had been rectified in 2012. But, the interest accounted for the entire amount during that period had not been rectified in 2013 as well and as a results, the net profit of the year under review and the retained profit as at 01 January 2013 had been understated by Rs.4.01 million and Rs. 12.03 million respectively while overstating the payable balance as at 31 December 2013 by Rs.16.05 million.
- (i) According to the financial statements of the year 2013, the balance in the Foreign Grants Account as at 31 December 2013 amounted to Rs.128,841.23 million and the following deficiencies were observed in this regard .
  - (i) Gratuity paid in the years 2010 and 2012 totalling Rs.5.94 million had been debited to the Grant Account without being debited to the provision for gratuity account. Therefore, the balances of the provision for gratuity account and the grant account shown in the financial statements as at 31 December 2013 had been overstated and understated by similar amount.
  - (ii) Foreign grants received amounting to Rs.339.4 million and Rs. 49.21 million for the Jaffna Killinochchi Water Supply Project and Improving Community Base Rural Water Supply and Sanitation Project respectively and related work-in-progress had not been brought to the accounts of the Board.
- (j) New water supply connections given on credit basis had not been brought to the accounts as debtors. But, the monthly installments paid by the water consumers had been credited to the New Connection Debtor Control Account and as a result, the New Connection Debtor Control Account shown in the financial statements had reflected a credit balance of Rs.17.31 million. Due to the above lapse the new connection income had also been understated by that amount.
- (k) Debit balances in liabilities and income accounts aggregating Rs.27.06 million and credit balances in assets and expenditure accounts aggregating Rs.122.45 million shown in the accounts appeared to be abnormal and also distorted the financial results and financial position of the Board for the year under review.
- (l) The sub-loan agreements for 11 foreign loans obtained by the Government of Sri Lanka for water supply Schemes amounting to Rs. 10,455.8 million had not been entered into with the General Treasury and as a result, their loan and grant portions could not be separately identified in audit. Hence, the accuracy and completeness of the loan balance, differed grant, amortization of the differed grant and the interest expense and liability shown in the

financial statements as at 31 December 2013 could not be ensured.

- (m) Receivable balance of the construction cost incurred in relation to rechargeable works amounting to Rs. 37.61 million had been shown inappropriately under deposits and advances in the financial statements without being set off against the related customer advances.
- (n) Inactive salaries and wages payable account balance carried forward in the financial statements since the year 2000 amounted to Rs. 36.87 million. However, an error correction for Rs. 8.8 million in relation to the salaries and wages payable for the years 2001 and 2002 which was detected in 2012 had erroneously been set off against the above mentioned account balance which had not been corrected in the year under review as well.
- (o) Although 61 schemes of rechargeable works had been completed and handed over as at 31 December 2013, the un-cleared balance amounting to Rs.28.51 million was observed in Rechargeable Customer Advances Account in respect of those schemes.
- (p) The sea water purification plant constructed in the year 2009 under Project of the Design and Construction of Drinking Water Treatment Facility for Moratuwa, Panadura and Negombo using Spanish Tsunami Facility Fund amounting to Rs. 363 million had not been capitalized even elapsed of five years as at 31 December 2013.

It was further observed that, the above facility had not been in operation since July 2010 due to problem in intake. However, Rs. 14.8 million had been spent for the electricity, hiring of motor vehicles and service agreements for office equipment for the period of 2010 to 2013.

- (q) Foreign grant balances aggregating Rs.10,358.38 million relevant to 29 Projects which had been remained unchanged over a period of 8 years as at 31 December 2013 without being amortized. The impact on the financial statements due to non-amortization could not be ascertained in audit as there were no details of the assets relevant to those foreign grants.
- (r) Transactions aggregating Rs. 2.45 million accounted for as foreign grants which could not be allocated for particular projects had not been amortized as at 31 December 2013.
- (s) The total value of assets donated to the Regional Support Centres of Tirukkovil and Potuvil by the UNICEF and Red Cross Organizations amounting to Rs.1,252.66 million had been transferred to the Head Office Grant Account without being accounted under the respective grants which had not also been amortized.
- (t) The benefit of the Government loans granted at interest rates below the market rates had not been treated as Government grants in the financial statements.

In this connection the Chairman of the Board had stated that *“The Government is the sole shareholder of capital provider which provides loan schemes along with grants and other assistance incorporated into the loans and subsidies loans. Therefore, there are no competing organizations which provide loans based on the same conditions which the Government provides. Hence, the National Water Supply and Drainage Board could not obtain the market rate of the interest rates of the loan schemes offered by the Government.”*

- (u) According to the audit test check it was revealed that, the balances of the Imprest Fund Accounts maintained at the Central Bank of Sri Lanka in respect of the foreign funded Projects at the end of the year under review aggregating Rs.283.59 million had not been brought to the accounts.
- (v) The work-in-progress balance of Jaffna Killinochchi Water Supply Project and Ratmalana, Moratuwa and Ja-Ela Ekala Waste Water Management Project had been understated by Rs.389.04 million and 22.01 million respectively.
- (w) The work-in-progress balance of Dry Zone Urban Water Supply and Sanitation Project and Greater Colombo Waste Water Management Project had been overstated by Rs.145.62 million and Rs. 291,000 respectively, due to imprest account balance brought to the work-in-progress balance and cording error made in accounting respectively.

### **2.2.3 Un-reconciled Differences**

The following observations are made.

- (a) Differences amounting to Rs.180.42 million and Rs. 593,910 were observed between the trade and other receivables and other payables respectively shown in the financial statements and relevant schedules.
- (b) A difference of Rs.886,102 was observed between the loan interest balance shown in the financial statements of the Kaluganga Project and in the financial statements of the Board .
- (c) A difference of Rs.1,087.44 million was observed between the balance of advances paid for special projects as shown in the financial statements and the balance shown in the age analysis furnished to audit.
- (d) Debit balances totalling Rs.819.63 million relating to 13 debtors accounts and credit balances totalling Rs.266.62 million relating to 11 creditors accounts remained un-reconciled due to non-availability of a system for the reconciliation of individual debtor and creditor balances with the Control Accounts. Out of these credit balances totalling Rs.50.42 million and debit balances totalling Rs.137.81 million had been older than three years.



- (e) A difference of Rs. 16.44 million was observed between the stocks ledger balance and the computerized inventory system balance in respect of the Brass item in the Main Stores due to failure of generating adequate information through the newly introduced computerized inventory management system.
- (f) Differences totalling Rs.3.7 million was observed between the Value Added Tax on output as shown in the financial statements and the amount computed by the audit based on the information furnished in respect of water sales of the Western Central Regional Support Centre.
- (g) The work-in-progress balances as shown in the financial statements of the Regional Offices had not been reconciled with the detailed schedules and as such a difference of Rs.4.39 million was observed.
- (h) The work-in-progress balances as shown in the financial statements for the year under review had not been reconciled with the balances shown in the individual financial statements of the Greater Trincomalee Water Supply Project and a net difference of Rs.953.22 million was observed between these two financial statements.
- (i) Unidentified debit balances totalling Rs.1.83 million relating to five accounts and unidentified credit balances totalling Rs.15.12 million relating to seven accounts had remained in the financial statements for considerable period without being cleared .
- (j) The Collection Control Account balance of the Trincomalee Regional Office as at 31 December 2013 amounting to Rs. 5.11 million had remained in the accounts without being cleared over a period of 3 years.
- (k) Although information in relation to income from sales is being maintained by the Commercial Division of the Board, significant differences of Rs. 1,088.2 million, Rs. 4.5 million and Rs.101.8 million were observed between the financial statements figures and the figures in the records maintained by that Division in respect of Meter Sales, Bowser Supply (503) and Bulk Supply (502) respectively.
- (l) Unidentified and un-reconciled long outstanding debit and credit balances yet to be reconciled as at 31 December 2013 amounted to Rs. 236.23 million and Rs.190.26 million respectively.

In addition to the aforesaid debit and credit balances which had already been categorized as inactive, there were several other unidentified balances aggregating Rs. 57.41 million as at 31 December 2013 as well.

#### **2.2.4 Accounts Receivable and Payable**

The following observations are made.

- (a) Short Term Deposits balance of Rs. 33.08 million kept at the Road Development Authority (RDA), Provincial Road Development Authority (PRDA) and Urban councils had remained unrecovered since the year 1999.
- (b) An advance of Rs.4.38 million given to the then Ministry of Water Supply and Drainage prior to the year 2002 had not been settled even at the end of July 2015 and any action thereof had not been taken by the Board in this connection.
- (c) The other debtor balance included under other receivables as shown in the financial statements as at 31 December 2013 amounted to Rs.64 million. Out of that, the balances older than three years amounted to Rs.22.33 million and the balances older than 11 years amounted to Rs.12.3 million. The balances outstanding from the Colombo Municipal Council represented 54 million or 84 per cent of the total outstanding balance. Effective action had not been taken to recover these balances.
- (d) Colombo Municipal Council debtor balance shown in the financial statements amounted to Rs.28.52 million and out of that, Rs.16.26 million had been older than nine years and the remaining balance had been older than three years. Effective action had not been taken to recover those balances.
- (e) Effective action had not been taken for the recovery of the sewerage debtor balance amounting to Rs. 9.21 million older than 3 years as at 31 December 2013.
- (f) Action had not been taken to recover a sum of Rs. 2.42 million Rs. 586,232 and 1.8 million of stock shortages of the stores at Kelaniya and Kegalle Regional Offices and Ground Water Section respectively identified in 2010 and 2013 from the person responsible for those shortages.
- (g) Action had not been taken to recover the loans given to the staff amounting to Rs.9.49 million older than 8 years.
- (h) Action had not been taken for the recovery of staff loans and advances given to employees amounting to Rs. 21.27 million categorized as non- performing loans.
- (i) Water pumps and fittings valued at Rs. 1.40 million issued to the contractor of the Mannar Water Supply Scheme in the year 2012 had neither been replaced nor return.
- (j) Action had not been taken for the recovery of advances granted to suppliers and contractors amounting to Rs. 1.06 million and Rs.19.3 million during the period of 1997 to 2012 and 1999 to 2012 respectively.



- (k) Advances granted to officers and organizations for purchases during the period 1995 to 2009 amounting to Rs. 906,013 had not been settled even at the end of July 2015.
- (l) The inactive balance of Rs.30.5 million and Rs. 11.34 million of the Trincomalee and Homagama Regional Support Centres had remained in the collection control account without being cleared over a period of 3 years.
- (m) Goods-in-transit balance amounting to Rs.40.75 million as at 31 December 2013 remained over a period of two years without being investigated.
- (n) Customer advances balance totalling Rs.6.27 million relating to three rechargeable works had remained over 15 years without carrying out any works.
- (o) Expenditure had not been incurred from the consumer advances received amounting to Rs. 2.81 million and Rs.1.06 million for rechargeable projects of Western South , Western North Regional Support Centres since 2010 and 2012 respectively.
- (p) Actions had not been taken to recover the advances receivables totalling Rs. 145.18 million and settle the payables totalling Rs. 45.87 million remained over the 2 years period.
- (q) Actions had not been taken to recover the advances amounting to Rs..8.55 million and Rs.5.52 million granted for the special Projects had remained outstanding over two years and outstanding since the year 2004 respectively without being taken any recovery action.

### 2.2.5 Lack of Evidence for Audit

The following observations are made.

- (a) The detailed schedules of the short term security deposit balances in respect of the Accounts Code Nos. 00/0/20/264/0 and 00/0/65/264/0 amounting to Rs.12.68 million and Rs.1.35 million respectively were not made available to audit.
- (b) Reasons for not paying the output taxes of VAT amounting to 40.27 million in respect of four Regional Offices were not made available to audit.
- (c) Reasons for Rs. 1,007.15 million of balances remained in the work-in-progress accounts over a long period without being unchanged were not made available to audit.
- (d) Rechargeable works are the jobs which can be completed within a shorter period, in most cases less than one year. However, advances aggregating Rs.70.82 million obtained from customers in respect of 30 rechargeable works undertaken over a period for more than three

years as at 31 December 2013 had been shown in the financial statements without any change. Further, advances aggregating Rs. 284.65 million obtained from customers in respect of 76 rechargeable works undertaken over a period more than two years as at 31 December 2013 had also been shown in the financial statements without any change. The progress reports and the reasons for delays etc. in relation to individual jobs were not made available for audit.

- (e) Detailed schedules relating to the rechargeable works amounting to Rs. 69.17 million had not been furnished to audit. Further, details relating to 17 rechargeable water schemes valued at to Rs.14.21 million of the Ratnapura Regional Office and eight rechargeable water schemes valued at Rs.7.58 million of the Trincomalee Regional Office had not been furnished to audit.
- (f) A rechargeable work receivable balance of Rs. 6.04 million was observed in Trincomalee Regional Office as at 31 December 2013. Details of that balance were not made available to audit and the balance had been carried forwarded in the accounts year by year over a period exceeding 3 years without carried out any investigation.
- (g) The details of the contracts for which advances of Rs.44.34 million had been granted during the period of 2000 to 2008 to confirm whether, they had been completed or not, were not made available to audit.
- (h) The detailed schedules and age analysis of trade and other debtor balance of Rs.2.26 million other payables balance of Rs.135.28 million and capital grant balances of Rs.210,017.62 million had not been furnished to audit.

**2.3 Non – compliance with Laws, Rules, Regulations and Management Decisions**

The following instances of non-compliance were observed in audit.

<b>Reference to Laws, Rules and Regulation etc.</b>	<b>Non-compliance</b>
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(a) Management Services Circular No. 30 of 22 September 2006	The approval of the Department of Management Services for the Scheme of Recruitment and Promotion Procedure of the Board had not been obtained
(b) Stores Management Guide of the Board	Obsolete items should be disposed or destroyed within 3 months after getting Board approval. But, obsolete stocks valued at Rs. 19.29 million remained in the stock over a period of more than two years as at 31 December 2013.



### 3. Financial and Operating Review

#### 3.1 Financial Review

##### 3.1.1 Financial Results

According to the financial statements presented, the working of the Board for the year ended 31 December 2013 had resulted in a pre-tax net profit of Rs.1,050 million as compared with the corresponding pre-tax net profit of Rs.417 million for the preceding year, thus indicating an improvement of Rs.633 million in the financial results. The increase of metered sales income significantly as compared with the previous year was the main reason attributed for the increase in the financial results for the year under review.

#### 3.2 Analytical Financial Review

The following table gives a summary of the financial results at various stages.

##### For the year ended 31 December

	2013	2012	Change	
	Rs. millions	Rs. millions	Rs. millions	Percentag
Income	17,217	14,558	2,659	18.26
Cost of Sales	(10,157)	(9,036)	(1,121)	12.41
<b>Gross Profit</b>	7,060	5,522	1,538	27.85
Other Operating Income and Gains	1,195	1,586	391	-24.65
Adminstrative Expences	(5,831)	(5,838)	7	-0.12
Other Operating Expences	(559)	(54)	(505)	935.18
<b>Operating Profit / (Loss)</b>	1,865	1,216	649	<b>53.37</b>
Finance Income	225	214	11	5.14
Finance Cost	(1,040)	(1,013)	(27)	2.67
<b>Profit / (Loss) before tax</b>	1,050	417	633	151.80
Taxation	(47)	(40)	(7)	17.50
<b>Profit / (Loss) for the Year</b>	<b>1,003</b>	<b>377</b>	<b>626</b>	<b>166.04</b>

The following observations are made in this connection.

- (a) The gross profit of the current year has increased by 27.85 per cent as compared with the preceding year. This increase has sufficient strength to normalize the effects of increase of

other operating expenditure by 935 per cent and decrease of other operating income and gains by 25 per cent.

- (b) The contribution of Rs.571,087 per employee in the year 2012 had increased by 24 per cent in the year 2013, while net profit of Rs.38,941 per employee in the year 2012 had increased to Rs.100,902 in the year 2013 reflecting 159 per cent increase.
- (c) The Board had to incur a sum of Rs.4.93 per unit of water consumed as interest on foreign loans obtained for Water Supply Projects and it was 11 per cent of the total production cost per unit reflecting two per cent decrease as against the previous year, purely as a result of the increase of production cost per unit.

### 3.2 Operating Review

#### 3.2.1 Performance

##### (a) Financial performance

The balance of the total foreign loan obtained by the Board through the General Treasury as at 31 December 2013 for water supply schemes amounted to Rs. 36,587 million or 14.69 per cent of the total assets. As analyzed below, the loan installment in arrears as at 31 December 2013 amounted to Rs. 5,825 million and accordingly the additional interest paid for the delay amounted to Rs. 280 million.

Year	<u>Installment in Areas</u>			Additional Interest Paid due to non-Payment of Interest on due Date
	Capital Payment	Interest	Total	
	Rs. millions	Rs. millions	Rs. millions	Rs. millions
2013	1,005	1,750	2,755	-
2012	990	682	1,672	59
2011	957	-	957	115
2010	441	-	441	106
<b>Total</b>	<b>3,393</b>	<b>2,432</b>	<b>5,825</b>	<b>280</b>

**(b) Production and Distribution of Clean Water**

The Board had produced 547 million cubic meters of clean water during the year 2013 and as compared with the production of 526 million cubic meters in the year 2012, which indicated 4.07 per cent increase. The number of water supply connections given at the end of the year under review had been 120,084, thus indicating a decrease of 13.5 per cent as compared with that of the previous year.

**(c) Non - revenue Water (NRW)**

The loss incurred by the Board due to non-revenue water which had not been identified and accounted separately, but had been brought to the accounts as a normal cost. Details of Non-revenue Water of the year under review and the last four years are given below.

Description	2013	2012	2011	2010	2009
Water Production (Cu. m.)	547.0	525.6	490.0	469.0	449.0
Water Consumption (Cu.m.)	381.6	368.5	344.5	321.5	309.2
Non-Revenue Water (Cu.m.)	165.4	157.1	145.5	147.5	139.8
<b>NRW as a Percentage of Water Production</b>	<b>30.24</b>	<b>29.89</b>	<b>24.64</b>	<b>31.45</b>	<b>31.14</b>

The following observations are made in this connection.

- (i) Out of the quantity of water produced by the Board in the year 2013, non-revenue water represented 30.24 per cent due to leakage, unlawful connections, free supply and administrative reasons, etc. The portion of the non-revenue water in the City of Colombo in 2013 had been 47.71 per cent. In view of failure to control this situation, it was observed that an additional cost of Rs.7.15 per unit of water consumed in 2013 had to be incurred by the Board. That represented 43 per cent of the cost of production per unit.
- (ii) Even though the Board had taken certain course of action during the past period to minimize the unlawful connections and expediting the systems of repairing the temporary breakdowns of water distribution lines, the rate of non-revenue water in the current year as compared with the year 2011 had increased by 5.6 per cent.
- (iii) As there is a need for the modernization of the main water distribution systems in the City of Colombo, which is older than 75 years, special attention of the Board is drawn to the urgency for the preparation and implementation of plans for that purpose. Even though two foreign funded Projects are being implemented in this connection at present, an adequate reconstruction of the water mains had not been achieved therefrom.

The water distribution mains that should be replaced due to water leakages have not been specifically identified to date. Even though the proposals for the implementation of the several major projects have been made, their implementation is moving at a very slow pace.

- (iv) The attention of the Board for reducing the non-revenue water in the areas other than the City of Colombo was also inadequate and it was observed that the targets included in the Corporate Plan were also not realistic.

(d) **Sewerage System**

The need for carrying out improvements to the infrastructure facilities for the disposal of sewerage in the cities has arisen due to urbanization taken place along with the economic development of the country. Even though the supplies of such facilities are the responsibility of the Board, an adequate progress in this area was not shown in recent years. Although the supply of sewerage disposal facilities to 7 per cent of the population had been expected as a national policy, the information to check its achievement was not made available to audit.

The Chairman of the Board stated in this regard as follows.

*Coverage of the sewerage disposal facilities to 7 per cent of the population expected in the national policy could not be achieved as limited number of waste water schemes been implemented due to donors are not being identified to sponsor those project.*

(e) **Foreign Funded Projects**

A large number of Projects are being carried out by the Board for water supply and sanitation services using local and foreign funds and the following weaknesses were observed in this connection.

- (i) Most of the large scale foreign funded projects had not been completed on due dates and costs had highly escalated due to additional works and price increases resulting from the extension of the project period.
- (ii) Uniform accounting policies had not been followed for the preparation and presentation of Project's financial statements.

### 3.3 Matters in Contentiuos Nature

- (a) According to the Circular issued by the Board on Rechargeable Works, the profit margin should be in the range of 10 per cent to 25 per cent. However, the following Projects recorded abnormal profits.

Project	Total receipt	Cost of work done	Profit	Profit as a percentage of total receipt
	Rs.	Rs.	Rs.	
00/0/EC/392/0	4,350,360	1,319,360	3,031,000	70
00/0/EE/392/0	6,703,243	1,608,018	5,095,225	76

- (b) Approval of the Board had not been obtained for the special bonus amounting to Rs.12.96 million given in the year 1999 and subsequently this amount had been shown in the financial statements as receivable. Therefore, it could be treated as an interest free loan granted to the staff.
- (c) The Board had charged 20 per cent as overhead expenditure on the total monthly salary of the Project staff and expenditure incurred on behalf of its foreign funded Projects without having special approval of the General Treasury. Total overhead charges so recovered during the year under review were Rs.234.01 million.
- (d) Even though the Greater Galle Water Supply Project had acquired a land by incurring Rs.16 million for construction of Hapugala Water Refinery Plant in 2002, that land was not utilized for the intended purpose to date due to large rock was therein.
- (e) The Non-revenue Water Project (SL P – 66) funded by the Japan Bank for International Cooperation had not been successful and as a results, that Project had subsequently been cancelled. However, a sum of Rs.354.7 million spent from the Consolidated Fund. The following observations are made in this regard.
- (i) A sum of Rs.171.6 million spent from the Consolidated Fund and the Loan in respect of site preparation, payroll, and establishment expenditure included in work-in –progress without being treated as a loss to the Board.
- (ii) The consultancy cost of Rs.172 million incurred for above project had been transferred to Greater Colombo Rehabilitation Project, but initial estimate cost for consultancy which were incurred for Greater Colombo Rehabilitation Project had not been reduced by that amount. Therefore, it was doubt in the audit whether this also loss to the Board.

The Chairman of the Board had stated in this regard that *“The Consultancy fee amounting to Rs.172 Million which utilized for Greater Colombo Rehabilitation Project has been shown as work in progress under the above Project.”*

- (iii) Gas Detector purchased by the Project for Rs. 7 million had not been recognized as an asset.
- (iv) Evidence had not been furnished to audit used of Rs.4 million work-in –progress of the above project for Randiya Project.

In this connection the Chairman of the Board had stated that *“The balance Rs.4Mn has been used for the Randiya Project and has been taken into the work in progress of the Randiya Project.”*

### 3.4 Management Inefficiencies

The following observations are made

- (a) The contract bearing No. SP/SIDA/RM/JE/WW/1 of the Moratuwa/ Ratmalana and Ja-Ela/Ekala Waste Water Disposal Project funded by Swedish International Development Cooperation Agency(SIDA) awarded in 2008 had been terminated in 2013 due to bankrupt of the contractor.

The Project had not complied with the provisions in the Procurement Manual of 2006 to get the confirmation from a local Bank, at the time of accepting performance bond and retention bond from a foreign Bank in respect of the above contract. As a result, the Project had failed to en-cash the performance bond to the value of US \$ 9,065,048 and retention bond to the value of US \$ 7,957,086 furnished by the contractor. Due to the above failure, the Project had not tried to get local legal proceedings and evidence for entering into international legal proceedings were also not made available for audit. In addition to the above lapses, the loss to the Board from the above contract had not been ascertained and its responsibility had also been not fixed even at the end of July 2015.

- (b) Action had not been taken to use the water pump valued at Rs.2.13 million at the Dhambulla Water Purification Centre despite the elapse of two and half year after installation.

### 3.5 Assets Management

#### Resources released to other Government Institutions

Fifty six motor vehicles of the Board had been released to the Line Ministry and Municipal Councils in contrary to paragraph 8.3.9 of Public Enterprises Circular No. PED/12 of 02



June 2003 and Rs.1.48 million had been spent on those motor vehicles by the Board during the year under review for renewal of licences and insurances.

**4. Budgetary Control**

Significant variances were observed between the budgeted and actual income and expenditure for the year under review, thus indicating that the budget had not been made use of as an effective instrument of financial management control.

**5. Systems and Controls**

Weaknesses observed in systems and controls during the course of audit were brought to the notice of the Chairman of the Board from time to time. Special attention is needed in respect of following areas of control.

- (a) Reconciliation of Control Accounts
- (b) Stocks Control
- (c) Journal entries
- (d) Project Administration and Performance Review
- (e) Receivables and Payables

H.M. Gamini Wijesinghe  
Auditor General.

## **Abbreviations**

ACTA	- Advanced Construction Training Acedemy	HSBC	- HongKong and Shanghai Banking Corporation
ADB	- Asian Development Bank	IA	- Internal Audit
AFD	- Agency of France Development	ICT	- Information & Communication Technology
AG	- Agent of Government	IDP	- Internally Displaced Person
AGM	- Assistant General Manager	IEE	- Institution of Electrical Engineers
AusAID	- Australian Agency for International Development	IFRC	- International Federation of Red Cross
BOQ	- Bill of Quantity	IT	- Information Technology
BOI	- Board of Investment	IMS	- Inventory Management System
CAPC	- Cabinet Appointed Procurement Committee	IP	- Internet Protocol
CBO	- Community Based Organization	ITBC	- Indian Technical and Economic Cooperation
CHOGM	- Commonwealth Heads of Government Meeting	ITEC	- Indian Technical and Economic Cooperation
CI	- Cast Iron	JBIC	- Japan Bank for International Cooperation
CloB	- Ceylon Institute of Builders	JICA	- Japan International Cooperation Agency
CKDu	- Chronic Kidney Disease of Unknown Etiology	KfW	- Credit for Reconstruction
CMC	- Colombo Municipal Council	KMC	- Kandy Municipal Council
CP	- Corporate Planning	KOICA	- Korean International Cooperation Agency
cu.m.	- cubic meter	KRB	- Kalaniya Right Bank
DANIDA	- Danish International Development Agency	km	- kilo meter
Dev.	- Development	LA	- Local Authorities
Dewats	- Decentralized Treatment and Disposal System	m	- meter
DGM	- Deputy General Manager	M&E	- Mechanical & Electrical
DI	- Ductile Iron	MC	- Municipal Council
DS	- Divisional Secretariat	MD&T	- Manpower Development & Training
DSD	- Divisional Secretariat Division	mg/l	- mili grams/ liter
EA	- Engineering Assistant	MGD	- Million Gallons per Day
ERD	- External Resources Department	MIS	- Management Information System
FFP	- Foreign Funded Project	mm	- mili meter
FIDIC	- International Federation of Consulting Engineers	MOU	- Memorandum of Understanding
GIS	- Geographic Information Systems	NC	- North Central
GM	- General Manager	NAS	- National Acedemy of Science
GN	- Grama Niladari	NCWT	- National Community Water Trust
GND	- Grama Niladari Division	NHDA	- National Housing Development Authority
GOSL	- Government of Sri Lanka	NIBM	- National Institute of Business Management
GPOBA	- Global Partnership on Output-Based Aid	NLDS	- National Library and Documentation Service Board
GT	- Graduate Trainee	NPD	- National Planning Department
GW	- Ground Water	NRW	- Non-Revenue Water
HDPE	- High Density Poly Ethelene		
HRM	- Human Resource Management		

NSBM	- National School of Business Management	T&C	- Tenders & Contracts
NWSDB	- National Water Supply & Drainage Board	TA	- Technical Assistance
O&M	- Operation & Maintenance	TCE	- Total Cost Estimate
OIC	- Officer In Charge	TEC	- Towns East of Colombo
P&A	- Personnel & Administration	TNC	- Towns North of Colombo
P&D	- Planning & Designs	TSC	- Towns South of Colombo
PAC	- Project Appraisal Committee	UC	- Urban Council
PD	- Project Director	UDA	- Urban Development Authority
PLC	- Programming Logic Control	UFW	- Unaccounted For Water
PRDA	- Provincial Road Development Authority	UNICEF	- United Nations International Children's Education Fund
PS	- Pradeshiya Sabha	UNOPS	- United Nations Office for Projects Services
PSC	- Project Steering Committee	UoC	- University of Colombo
PVC	- Polyvinyl Chloride	UoP	- University of Peradeniya
R&D	- Research & Development	uPVC	- Unplasticised Poly Vinyl Chloride
RDA	- Road Development Authority	USA	- United States of America
RFP	- Request for Proposal	USAID	- United States Agency for International Development
RO	- Reverse Osmosis	VPN	- Virtual Private Network
RSC	- Regional Support Centre	VSD	- Variable Speed Drive
RSC(WN)	- Regional Support Centre - Western North	WASH	- Water, Sanitation and Hygiene
RSC(NC)	- Regional Support Centre - North Central	WATSAN	- Water and Sanitation
RSC(N)	- Regional Support Centre - North	WB	- World Bank
RWS	- Rural Water Supply	WHO	- World Health Organization
SCADA	- Supervisory Control and Data Acquisition	WS	- Water Supply
S/E	- Southern/ Eastern	WS&S	- Water Supply & Sanitation
SACOSAN	- South Asian Conference on Sanitation	WSP	- Water Supply Plan
SCADA	- Supervisory Control and Data Acquisition	WSS	- Water Supply Scheme
SIDA	- Swedish International Development Agency	WTP	- Water Treatment Plant
SLFI	- Sri Lanka Foundation Institution	WWTP	- Waste Water Treatment Plant
SLS	- Sri Lanka Standards		
SLSI	- Sri Lanka Standard Institution		
S&M	- Small and Medium		
SMS	- Short Message Service		

# Corporate Information

## Name of the Organization

National Water Supply & Drainage Board (NWSDB)

## Legal Form

Government Owned Statutory Board

## Date of Establishment

1974.03.01 by Act of Parliament  
NWSDB Law, No. 2 of 1974

1992.03.11 the Act was amended  
NWSDB (Amendment) Act, No. 13 of 1992

## Tax Identification No.

4090 31820

## VAT Registration No.

4090 31820 7000

## Contact, Head Office

Galle Road, Ratmalana, Sri Lanka  
Tel: +94 11 2638999 (hunting),  
+94 11 2637194, +94 11 2611589  
Fax: +94 11 2636449  
Email: gm@waterboard.lk  
Web: www.waterboard.lk

## Line Ministry

Ministry of Water Supply & Drainage

## Call Centre

1939 (24 hours)

## Customer Care Unit, Head Office

+94 11 2623623 (During office hours)

## Banker

Bank of Ceylon

## Auditors

Deputy General Manager (Internal Audits)  
Government Audit Unit

## Secretary to the Board

Mrs. W. P. Sandamali De Silva

## Board of Directors

Eng. Karunasena Hettiarachchi - *Chairman*  
Mr. K. D. Gamini Gunaratne - *Vice Chairman*  
Mr. N. P. Thibbutumunuwa - *Working Director*  
Dr. P. G. Maheepala - Director General of Health Services,  
*Ministry of Health*  
Mr. A. K. Seneviratne - Additional Director General  
Department of National Budget, Ministry of Finance & Planning  
Eng. S. Panawennage - Director General/ CEO, *Arthur C. Clarke Institute* for Modern Technologies, Ministry of Technology & Research  
Mr. W. G. Premalal Senior Assistant Secretary  
Ministry of Local Government & Provincial Councils  
Mr. P. H. A. S. Wijayarathne - Additional Director General  
Department of Public Enterprises, Ministry of Finance & Planning

## Senior Management

Eng. K. L. L. Premanath - *General Manager (upto 12.07.2013)*  
Eng. B. W. R. Balasuriya - *General Manager (from 14.08.2013)*  
Eng. B. W. R. Balasuriya (*Water Supply Projects*)  
(upto 12.07.2013)  
Eng. G. A. Kumararathna (*Sewerage*)  
Eng. D. N. J. Ferdinando (*Policy and Planning*)  
Eng. (Mrs.) P. N. S. Yapa (*Northern/ Central*)  
Eng. D. S. D. Jayasiriwardene (*Southern/ Eastern*)  
Eng. K. R. Devasurendra (*Corporate Services*)  
Mr. D. Thotawatte (*F&C*)  
Mr. G.K. Iddamalgoda (*Human Resource Management*)  
Eng. N. M. S. Kalinga (*Western*)

## Deputy General Managers of Divisions

Eng. (Mrs.) K. T. P. Fernando (*Project Co-ordination*)  
Mr. H. Ariyasena (*Human Resources & Industrial Relations*) (Upto 02/08/2013)  
Ms. W. A. C. Sriyani (*Human Resources & Industrial Relations*) (From 05/08/2013)  
Eng. C. R. Perera (*Production - Western*)  
Eng. W. A. N. Wickramathunge (*M&E*)  
Eng. J. Chandradasa (*Information Technology*) -  
Covering up  
Eng. S. G. J. Rajkumar (*Development*)  
Eng. R. H. Ruvinis (*Southern*)  
Eng. R. S. C. George (*Corporate Planning*)  
Mr. R. M. A. S. Weerasena (*Internal Audit*)  
Ms. M. M. S. Peiris (*Finance - Acting*)  
Ms. A. P. Sirima De Silva (*Costing*)  
Mr. M. S. M. Aslah (*Supplies and M.M.*)  
Eng. R. H. Ruvinis (*Planning & Design*)

## Deputy General Managers of Provinces/ RSCs

Eng. W. B. G. Fernando (*Western - Central*)  
Eng. M. K. Hapuarachchi (*Western - South*)  
Eng. K. J. V. A. Perera (*East*)  
Eng. (Mrs.) M. K. Bandara (*Western - North*)  
Eng. L. L. A. Peiris (*Central*)  
Eng. M. I. A. Lathiff (*Uva*)  
Eng. N. E. M. S. B. Ekanayaka (*North Central*)  
Eng. D. U. Sumanasekara (*North Western*)  
Eng. D. F. S. de F. Gunawardene (*North*)  
Mr. R. A. B. S. Mendis (*Sabaragamuwa*)

## Deputy General Managers working as Project Directors

Eng. (Mrs.) C. J. D. Perera - (*Kalu Ganga WSP, Phase I - Stage II*)  
Eng. J. R. B. Nadurana - (*ADB 5th project*)  
Eng. R. Kulanatha - (*Wastewater disposal for Rathmalana Moratuwa & Ja-Ela/Ekala Area*)  
Eng. B. S. Wijemanna (*Greater Colombo Rehabilitation Project*)

